STRING QUARTET PLAYING

By

M. D. HERTER NORTON

Effie Krauss

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THE KNEISEL QUARTET

STRING QUARTET PLAYING

A New Treatise on Chamber Music,
its Technic and Interpretation

Illustrated with numerous music examples in score

By

M. D. HERTER NORTON

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Dedicated to

THE KNEISEL QUARTET

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Chapter I.

INTRODUCTORY.

Chamber music is one of the few lasting interests of life. Young men have grown old together playing for love of it, with a satisfaction that is never dulled, at weekly meetings, year in year out, for a quarter century and more. Unlike most arts, whose devotees are alone in their pursuit, unlike most sports, which imply some rivalry of skill, chamber music is a social enterprise, the nucleus of sympathetic gatherings wherein the players are dependent upon each other for the achievement of their common interest.

It is, moreover, the living bond between the artist and the amateur. Chamber music originated, in fact, in the contacts between musicians and the lovers of music who, gathering composers and performers about them, gave the art its first impetus towards development—the Esterhazys and von Fürnbergs of Haydn's day, and others whose names are linked with the great periods in musical history. Many of these enthusiasts joined in the music-making themselves. A most notable example is that of Prince Rasoumoffsky, Russian Ambassador at Vienna, who played second violin in his own quartet, with Schuppanzigh as first, and to whom Beethoven dedicated his three quartets op. 59. In our day, mechanical inventions make music, and even individual artistic performance, familiar. But this disembodied entertainment lacks the intensity of satisfaction that comes in making music by one's own efforts. It is nothing short of exciting to hear a concert after playing through the program, or to assail for oneself works which have appealed on a first hearing. Even the listener gains further intimacy with music he hears worked over by his friends of an evening. Often he is filled with envy of their more active enjoyment. It is this enjoyment which is indeed the true support, background, nourishment of any people's culture.

Both the forms and the literature of chamber music assure it this living influence. Its forms are simple and accessible; its literature is extensive and of the greatest music. There are

string trios (for violin, viola and cello) like the Mozart Divertimento in E flat, the op. 9 of Beethoven, and among recent compositions the Dohnanyi Serenade in C; and piano trios (for violin, cello and piano) too numerous to mention. There are the string quartets with which this volume is concerned; and piano quartets (for violin, viola, cello and piano) by all the great classical and modern composers. There are the larger forms: quintets (string quartet with added viola, cello, piano or wind) sextets, septets, octets, of strings alone or strings with piano and with winds. With none of these combinations is it ever necessary to play arrangements: the original music is at hand. And in it there is a more profound satisfaction than in solo music, a satisfaction for the violinist who could not or would not aspire to the technical independence necessary to play the great concerti, for the cellist whose literature is proverbially limited, for the viola-player who has practically no solo literature of his own.

It is more and more widely recognized that for the student who will eventually make music his profession there is in chambermusic the best training for general musicianship. Few students are destined for an altogether satisfying virtuoso's career and yet many are ambitious of a more individual opportunity of expression than that offered by membership in an orchestra. The field of chambermusic is filled with every sort of opportunity, for the noblest compositions demand the highest standards. The sooner the student begins his acquaintance with its literature and its playing-style, the sooner he thinks for himself in studying it, the riper will be his own expression, whatever line is his eventually. The greatest soloists are those who can regret that the demands of a virtuoso's career prevent their cultivating their own knowledge of quartets, for the form that embodied Beethoven's last most magnificent thoughts sooner or later wins the devotion of every true musician.

Why, out of all this richness, should the present study be devoted to the string quartet to the exclusion of other chamber music forms? Because the string quartet is the basis of chamber music and the most perfect form of pure musical ex-

pression. If the very heart and roots of it are searched, things are learned which may be applied to any other form. The balance of the four stringed instruments—two violins, viola and cello—has given it the perfection to survive through every sort of development in musical writing. It offers, moreover, very clear problems of texture and color which demand the most refined treatment and which, once grasped, illuminate the problems presented by other combinations of tone. The quartet-player has, all in due time, much to learn from playing with added string or wind instruments in the larger forms of chamber music, and with the piano. The percussion instrument, however, brings with it characteristics to which the string-player must *adapt himself*, not those which he must absorb into his own style. It is better training for string-players to acquire a conception of their own possibilities before they begin adjusting themselves to another type of instrument. The confirmed quartet-player goes so far as to feel that the piano can never truly enter the sacred domains of his own art. But, aside from this prejudice which is founded on good enough reason (for the mechanism of the piano inevitably precludes its joining in the extreme typical refinements of string-playing) it is rather for the piano to learn from the bowed instrument as the bowed instrument in turn learns much of the nature of phrasing and sustained tone from the singer. The trio does not give such good fundamental training as the string quartet for these reasons; nor does the piano quartet or quintet, which in any case requires separate training of the string body to achieve a proper ensemble with the piano.

The quartet is a form most feasible to the amateur. In Beethoven's day it was even the accepted arrangement by which symphonies were made available for home-consumption. There are always plenty of fiddlers to be found: the most accomplished takes first violin, another second, a third (who, with a steady sense of rhythm and a musicianly character, may prove a most reliable support to the group even if his technical accomplishments are not great) with a little application masters the viola clef, a cellist—and the group is complete. Strangers to quartet literature will find great source of delight in the

minuet movement of some Haydn quartet which, while technically simple, yet if played *in true quartet style* serves as a stepping stone to the more complicated movements. The volume of "15 Celebrated" Haydn quartets (selected from the 83) will soon become a treasure-house and so it will remain early and late in a quartet-player's life. Then there are two volumes of Mozart quartets (Peters Edition) the first containing the ten most celebrated, the second the remaining seventeen, most of which are less difficult. And so to Beethoven's op. 18 (perhaps numbering 1-4-3-2-6 in order of difficulty). When these have been somewhat digested, there is all the realm of literature open to independent investigation: Schubert, Mendelssohn, Schumann and Brahms, the later Beethoven, Grieg, Borodine and Glazounov, Tschaikovsky, César Franck, Debussy, D'Indy and Ravel, Dvorak, Smetana, and countless more, representing every period in musical development from Haydn's day to ours, old music for those who care to seek it out, modern music for those who are skilled enough to venture in less familiar fields. And always at the end of the road, still greatest of all, and ultimate goal of the quartet-player, the last quartets of Beethoven.

Here is something for teachers of stringed instruments to teach, something more than the routine of exercises and solo-pieces—music easily organized, of permanent interest and widespread influence in the social happiness of nations. Those among their students who eventually take up music as a profession will have the wider musicianship because of their familiarity with it, while those to whom it remains a pastime will have found an inexhaustible source of enjoyment.

The string quartet, as it has existed since the end of the eighteenth century, has been thoroughly tested by time, composers and performers. Its mechanical unity, the variety within that unity, the permanence of the selection of the four instruments from among all the possible combinations, give it the greatest artistic resistance. It emerged definitely from the general forms of chamber music the moment that music itself began to grow into a vital art. It has kept its form through all the changes in orchestral structure and the mechanical improvements in the piano. It has served the greatest geniuses.

It is the amateur's richest opportunity for self-expression. It gives the artist a noble and exquisite medium, the elating experience of devotion to a high ideal. So far as any human performance is predictable, it cannot fail to develop in the hands of our composers as long as the present instruments serve the creative genius of music.

So important a branch of the playing art has of necessity developed a machinery and a method of its own. Even the experienced quartet-player, when he comes to set them down, is amazed at the infinity of musical things there are to be *particularly considered* from the point of view of quartet style. The purpose of this book is to present a study of these musical mechanics which shall be of service to anyone who takes part in the enjoyment of chamber music and especially to the interpreter of quartet-music, its most perfect and most absorbing form. The object of such a study is not to perpetuate any given theory of quartet playing, thereby trying to fix dynamic matter in a rigid mold, but rather to awaken curiosity, the inquiring, not easily satisfied habit of mind, the creative sense which does not take what lies before it for granted but contributes an original approach to its object by constructive triumph over mechanical problems. The choice of examples has been purposely limited to the quartets of Haydn, Mozart, Beethoven and only a few others, because these have withstood the tests of time and represent the finest specimens of quartet-writing; and the same quartets have been repeatedly quoted from with the purpose of reducing the number of reference volumes to a conveniently small and standard one.

Very little has been written on this subject. Yet popular interest in chamber music is ever increasing: the love of it is handed on to fresh generations in the old world and is fast permeating the new. This book is offered in the belief that a study of the characteristics of quartet playing will be of use to the student musician in the service of his art and to the music-lover in penetrating further into the realm of things he holds so dear.

Chapter II.

STYLE

A discussion of quartet-playing of necessity begins with the subject of style. Style is not easily defined, because it is itself an element of music and also it pervades all elements of music. There are two aspects of style to be considered: the style of the music, which is the final crystallization, all technical elements perfected, of the composer's musical thought; and the style of the performer, which is the very quality into which his powers are crystallized. Style is important in solo music and in the comparatively simple character of the individual performer; or in orchestral music and in the great body of typical sounds dependent upon the conductor's baton; but its importance is as though intensified in the string-quartet which involves on the one hand a literature of the most clear and perfect specimens of musical thought and on the other the necessity of blending four individual and equally important personalities into a unit.

Interpretation of a work depends, then, on both the performer's style and his sense of the music's style. There is obviously a *right* style: Beethoven demands other qualities than Haydn; Debussy or Ravel, with their multiform *pianissimi*, than Brahms, the red-blooded; and a confusion is unmusical, offensive or merely bizarre. This is what we mean when we say that a certain quartet excels in playing Beethoven, another in modern French works. There is undoubtedly a temperamental inclination of the individuals composing a quartet, as among soloists, towards one type or another of music. National and racial elements enter in here, which become a part of the man's playing. The Latin may not feel ready sympathy for Brahms, nor the Bohemian for Debussy or the Modern French School. But, precious as these characteristics are where the music is essentially national, they limit dangerously the player's conception of musical style and of the style of quartet music—the abstract and pure—particularly.

There is only one worse sin a quartet can commit than playing in a mistaken or impure musical style, and that is playing with no *quartet style*. Such a quartet is nothing. It leaves

quartet music inarticulate, chaotic, senseless. Before it can attempt, therefore, to interpret musical style, a quartet must master the essential style of its own form. There lies before the quartet-player a set of problems distinct from either solo or orchestral problems. For the quartet means four individuals who make a unified whole yet remain individual, unlike the soloist who is a whole in himself or the orchestra which loses individuality in numbers and is held together by the personality of the conductor. It means, moreover, an adaptation of stringed instrument technic to the production of quite other effects than the customary solo effects.

The purity of quartet style demands absolute subjection of virtuosity to the music, and while the best technical equipment is not too good for it, the skill of the player in an elaborate technical passage will be tested rather by his treatment of the passage in relation to the rest of the parts than in any outstanding brilliance of execution. It is well known that the great violinist is not necessarily a good quartet-player: his individualistic vitality, noble though it may be, disrupts the spirit of ensemble music. Even four equally accomplished virtuosi do not constitute a quartet: the *mere* virtuoso remains hopelessly foreign to the style while he who grasps the musical intention has difficulty in subjecting his habits of individuality to the whole. The training in all-round musicianship which quartet style gives is riper and broader than any other, because it requires adaptability to others, without the lack of personal initiative which so often results from orchestral practice.

The history of music is the history of style. Haydn established quartet writing as real musical matter, in forms which Mozart with his greater delicacy and wider developments still adhered to, which Beethoven burst out of into freer forms, giving impetus to developments that are to this day unexhausted. Tradition, therefore, which hands on the atmosphere in which a certain style of music is written, must be heeded. By tradition and a right style let not an unchanging conservatism be imagined. Violin technic developed tremendously from Haydn's time to Beethoven's and from Beethoven's to the present, and is susceptible of always more growth. Technical conditions affect the composer's range of possibilities,

and vice versa, and the possibilities of further development in quartet music are infinite. Tradition helps retain the distinguishing features of a style — what we call the purity, simplicity, gaiety of Haydn, the breadth, romance, passion of Brahms, the shifting, shadowy, chromatic color of Debussy.

There are two sources of tradition. One might be called *theoretical:* concerned with general knowledge of the composer's ideas, his nature, his times, the artistic features and state of instrumental technic of his period, giving the student fundamental reasons for his own conception. The other *aural:* hearing the interpretative descendants of those who played with the composer's direction or approval. Vienna, the home of Haydn, Mozart, Beethoven and Brahms, in the golden age of music produced violinists, conductors, critics whose influence will be felt far down the years. Mayseder played Beethoven's quartets under the composer's own direction; the Helmesbergers, father and son, inherited these ideas and passed them on to men of our day. A good critical faculty should be brought into play in this second sort of tradition, for there are personal idiosyncrasies in every player. Mayseder's manner of playing was a small and fine one, to judge from his own style of compositions, dainty variations, etc., and it is recorded that Beethoven was never altogether satisfied with his work. Schuppanzigh, giver of famous quartet evenings, was a grotesquely fat man, so that it was said of him in his later years that he could not reach the higher positions on his instrument! An interpretative artist, furthermore, does not play at all times, or all his life, alike: and changes and developments in technic and musical conceptions pertaining under modern conditions must be understood so that musical expression may be adapted to the times without losing its essential distinction.

The creative mind objects that it needs respect no tradition, being a law unto itself. None, we grant, save the perfect achievements of creative genius. But the very style in which music has been created is an inherent tradition, inescapable but also invaluable to the player who not only creates but *re*-creates. He should regard tradition as a test, a guide, not as a law. He is at liberty to alter it when he can prove good and suffi-

cient reason for the triumph of a new way. For artistic individuality *is* free to do as it chooses provided it has learned that accuracy, which, as Emerson says, "is essential to beauty." Meanwhile it may save him from the pettiness of the interpreter who thinks that by mere tampering with custom—mere erratic upsetting of inherited interpretations of tempo or phrasing—he is projecting new light upon the music. This is destruction, not creation. And tradition will be the guide giving steadiness and direction to his experimentations in quartet playing: for phrasings, bowings, fingerings, pizzicati, all means of color production, take on a new significance in quartet music. Just as the composer finally crystallizes his thought only by experiment, by process of trial and error (there is not a manuscript of Beethoven which does not show how many stages his thought went through before it satisfied him) so only by experiment, by process of trial and error, will the quartet-player finally master the details of quartet style.

The most useful study of quartet-playing then, would be one that fractionates quartet style into its technical elements and suggests how these may be resynthesized into performance. The student of quartet-playing should not only become acquainted with the literature, but should form in his early days a clear idea of style and how to work for it, which he can apply when the time comes to his own interpretation of things past and to clarifying the problems of new music. The amateur, having it in his mind, increases his own enjoyment in reading and his critical faculty in listening.

Chapter III.

ENSEMBLE.

The general principles of playing together, as epitomized in the string quartet, might seem fairly obvious: style, homogeneity, and the intrinsic interest of the individual players. An organization like the Kneisel, the Flonzaley, Capet, or London String Quartet is easily preferable to four chance players who play without quartet style, because an interpretation is only alive and interesting when it is subserved by a highly developed understanding and subtlety of ensemble.

Yet style is not easily achieved and the homogeneity that sounds so simple depends on many details which cannot be used or appraised without much critical thought; while the role of the individual personality in the performance and of the instrumental voice in the composition involves subtle and various problems subject to much understanding study.

The abstract quality of music that is almost too evanescent for an actual setting down, too dependent upon individual genius to be reasoned about or taught, makes it difficult to particularize the constituents of a good ensemble. Yet only by analysis can we begin to clarify the study of how to play together. The divisions into which the subject has here been separated are only made for the sake of such an analysis and should be studied always with the realization in mind that any division is more or less arbitrary and that the divided subjects should be thought of as constantly interactive and interlinked.

The first requisite of a good ensemble is that each player shall have the *sense of the whole.* This he can only feel by *listening to the others*—constantly, whether he knows the music or is reading. With study, then, he becomes familiar with the other parts and is ready to adjust himself to them or to assert himself so that they can adjust themselves to him, but he can never afford to stop listening. Only by remaining acutely aware of what is being done about him can he be sensitized to the necessary degree. In reading, this is the only way to make the most of strange matter, not only following one written part but being quick to perceive its bearing upon the other parts. The poorest reader is he who tries for all the notes regardless of the general gist of the music; while the best is alert to the new structure, harmony, voice-leading, and takes an intelligent if not a note-perfect part in the whole. In performance, it is the only way to achieve the necessary give-and-take, to play in and out, to respond freely to the others' interpretations, to meet the unexpected. For circumstances condition the best-prepared performance: weather, acoustic properties of strange places (which may make it very difficult to hear each other and know whether one is taking up one's own part of the ensemble properly), the influence upon the individual's playing of his own nervous and temperamental state.

Think of the forward motion of music as of a river. Tempo, as we shall see, is the current. Each player should feel his part a tributary stream winding in and out and in again. Part of a greater same. He must *enter without beginning* and *cease without stopping*. He should feel as though the whole emanated *from his own mind*, his fingers only being limited to his special instrument.

The playing of a quartet part requires just as much *vitality of interest* as any solo performance. The student may consider the second violin or viola part merely subsidiary, and his indifference will promptly show itself in monotony. He should not forget that every voice needs *convincing quality*, that accompaniment or the color of an inner line of harmony is just as important as the most melodious theme. He is the medium of an expression more extensive than his one part. If he listens well and feels the whole, he will know in his own mind the meaning of his part; then he should listen to himself more critically to be sure the meaning is clear to the listener.

The more technical aspects of ensemble will be discussed in detail in the following chapters, but meanwhile it is essential that each player should have a *proper appreciation of the role of his instrument* in the quartet.

The First Violin.

Tradition has it that the first violin is the leader. In early compositions this was necessary because the first violin had practically a solo part, with the cello for bass and the inner voices for accompaniment. Although the inner voices have grown always more independent, adding solo to their harmonic and color importance until in late Beethoven and in most modern music there may be said to be no distinction in value between the parts, still the first violin, carrying the highest voice, naturally the most brilliant, retains an inevitable leadership. This does not mean a persistent predominance. A first fiddle without the grace to subdue itself is objectionable and far from the spirit of quartet music. It should be ready to yield the floor, just as it expects to be yielded to, when another takes the leading voice or the vital tone in a modulation. It must be

ready to drop down into insignificance, feeling itself a part of the general color and texture just as constantly as the others do. Its leadership among the equally distributed parts of modern quartet music is due to the fact that, although the quartet is a high form of co-operative art, it is still subject to a focal point of individual initiative when taken as a whole. The cello lacks the tones and the quickness of motion to be this point; an inner voice could with less facility and reason give indications, save where these definitely concerned itself; so it devolves upon the first, the most brilliant voice, to bear the greatest responsibilities in holding the ensemble together.

This responsibility means that the first violinist, to fit himself as a leader, must be familiar both technically with his part and mentally with the whole of the music: that he must *practice his parts* and *study his scores.* For the amateur, joining his friends for an evening of recreation, this is seldom feasible, but it naturally happens that the most accomplished fiddler of the group takes first violin, and in this way the players are assured of getting all they can out of their combination. But with a regular organization, practice and study on the part of the first violinist are essential; experience shows that a rehearsal with the leader unprepared is time wasted. For unless the guiding spirit of the quartet knows what is to be done, he cannot focus the playing to any useful purpose. With his own part well in hand, he can advise with the others about theirs; with the music in his head, he can mold the playing to his satisfaction. The artist who has knowledge commands the respect of his colleagues. In what concerns the personal equation, while a conductor may handle his orchestra like a dictator, the leader of a string quartet needs tact above all things, to unite effectively and sympathetically the three other personalities engaged with him in the pursuit of those high aims of which quartet music is symbolical.

The Second Violin.

The second violin has been commonly considered the least interesting of the four parts—unjustly, since in so choice a combination as the quartet the instruments are *ipso facto* equally important. Being the same instrument as the first, and

less distinguished in color than the others, it is a little everybody's servant. Yet its part has, ever since the earliest quartets in which all the other three accompanied the first, always consisted of more than accompaniment and bridging; in late Beethoven it becomes technically difficult; and in modern music it partakes of virtuosity with perhaps the added difficulty that it is still a middle voice. It should be adaptable in its attitude towards the first, cello or viola when its role is accompaniment or underlying voice; but on the other hand, while it should not sound out aggressively, it should speak with conviction where it has the solo voice. Having a part of perhaps less initiative and more adaptation than the others it should beware the danger of falling ever so slightly behind the tempo as it easily does when subdued for a considerable space. Promptitude and decision are most important in its role.

The Viola.

The viola stands out at once by its unique color. It has never proved a successful solo instrument, save in the hands of rare, extraordinary players; but it has grown in the literature of the great composers and in modern technical developments to be a most interesting instrument. It is the bond between the upper and lower voices of the quartet, its flexible tone mixing well with the violins, yet distinct from them: a bond and simultaneously an individual with a quality of its own. It adds flavor to the inner harmonies and new individuality in solo sound: rich, sombre, emotional, sometimes hazy, sometimes nasal, with a "remote and melancholy timbre of the lower strings when muted." A sense of these qualities then, in addition to the requirements of adaptability, is essential to the good violist. He is the lower-middle pivot of the whole.

The Cello.

The cello is the ground-work and underpinning of the quartet structure. It supplies the bass-line and the chord-form. It came into the family to take the theretofore unappreciated and undeveloped part which, in the days of Corelli and Scarlatti, the cembalo or organ or harpsichord contributed from a mere figured bass to the voices of the other three instruments.

Mozart first gave a hearing to its magnificent tone and the differing color of its upper and lower registers, and Beethoven bestowed upon it its full share, which it has since kept, as a solo and ensemble member of the quartet.

The cellist has to bear in mind that low tones are *slow-vibrating* and one of the qualities most valuable to him is that lightness of motion which is malleable in the ensemble. He must proportion his greater voice to give and take with the others, for the large capacity of his instrument easily becomes too loud or too heavy. It is often necessary for him actually to start an entrance an instant sooner than the higher voices in order to sound simultaneously, and indeed, in certain cases, it may be necessary for the bass-tone of a chord to be audible an instant before the others. As the bass-pivot, he is so situated as to hear the higher instruments blended as they cannot hear themselves and his point of view is of great importance in perfecting the ensemble.

Into these four characters, four personalities are to be fitted. The expression of fresh, live individuality is a necessity in making music. But in a quartet the artistic contribution of each member will be measured by his skill in asserting or subduing the very individuality which he must possess to be at all interesting. An indifferent voice, indicating a weak personality, makes the ensemble totter; a too vigorous voice, also. Personality should be assertive, not agressive; gracious, not timid. The virtuoso is apt to have habits too individualistic to make a good chamber-musician; the orchestra-player, on the other hand, drilled in an aggregation, has lost the spontaneous assertion of personality. It matters not in which voice of the four the fault lies: if it lies in any the whole suffers. The happy union of personalities lies in the well-proportioned virtues and the well-controlled vices of each of the four.

It is usually found that one personality is better fitted to playing first violin, another to second, and in the perfection required of an organization (including, as we have seen, the special study and practice of the leader) the parts are developed accordingly. But in training students an interchange of violins is desirable. The second violinist should project him-

self into the different manifestations of the leading voice and feel the quartet from that angle. The first may make an excellent leader, but if he cannot play a satisfactory second, as often he cannot, he is no ensemble-player. Similarly, the violist type is a distinct one, to develop the viola role. But in students' training it is most important that the violinist and violist should acquire a knowledge of each other's parts. Feeling the whole from the pivot of another characteristic voice greatly widens one's general conception of the music and develops the subtler qualities that lead to a sympathetic ensemble. It also quickens the understanding and critical faculties. It is the misfortune of the quartet-player that he cannot hear himself and appraise his blending qualities, and he is dependent upon the suggestions of each and all of his colleagues in building up what he himself cannot judge of in the ensemble.

Seating and Position.

Quartet organizations are not unanimous as to the placing of the instruments. The most usual position adopted by well-known quartets of the past places the violins facing each other, cello behind first, viola behind second (and, of course, first violin with bow-arm to audience). Some quartets prefer the second violin behind the first, cello behind viola; some, even, the graceless arrangement of the cello opposite the first violin. Admitting that both habit and fine distinctions are involved, the author considers the first arrangement better for acoustical and aesthetic reasons. It places the lighter instruments in the foreground, the heavier, or darker, in the background. The second violin and viola have much harmonic color and middle-voice unity, in accompanying and in fractional handling back and forth of motifs, and physical proximity naturally conduces to the production of a closer current team-work; also, the violin, the slighter in tone of the two, is nearer the audience, whereas in the other positions it is put in the background as well as separated from its running-mate, the viola, which, in turn, is too prominent when playing opposite the first and in front of the cello. The two violins, less unified in action but more alike in color, stand out better when balanced on opposite sides

against the background of lower voices. Most important of all is that the cello should be as close as possible to the first violin in order to receive indications promptly and acutely and be able to set in motion immediately the bass-tones which, by their low vibration, are slower to sound than those of the other instruments. Aesthetically, it looks better to see the smaller instruments in front of the bigger: the viola or cello is ungainly opposite the first violin, the second insufficient support behind it. The two heavy instruments are more fitly placed at the back than overweighting one side of the combination.

Proper seating is necessary to appearances, for externals affect the audience subconsciously, and also to enable the players to hear themselves as well as possible. The four stands should be grouped as close as may be, low enough so that the players can see each other, but not so low as to cause a bad position of the instrument; and chairs should be near enough to avoid straining the sight, far enough to leave comfortable space for the instruments. The violinists' body-weight should, as in the standing position, incline slightly to the left side leaving the bow-arm free, the left leg the more forward of the two, the right dropped a little so as not to interfere with the bow-arm; back straight, supported slightly at hips by chair-back, if so desired, but never all the way up as this interferes with freedom of arms and gives an indolent aspect. The cellist should turn his instrument slightly towards the audience so that the tone may carry directly forward. The player who has a rest while others are playing should never slouch or appear for the time to have slipped out of the picture; for his doing so may distract the listeners' spirit of concentration, as well as that of the other players. It is bad form for any member of a quartet to beat time with his foot, because it attracts attention and shows either uncertainty of rhythm in the mind, which is the only proper locus of certainty, or an unconscious waste of nervous energy detrimental to relaxation. The first violinist gives his signals by a slight upward or downward motion of his instrument, and unity of action is helped by a look or a slight familiar

motion, comprehensible to those concerned, not perceptible to the outsider.

In cultivating *homogeneity* of ensemble it is necessary that the four players shall be of the same type and school. Differences in executive method, and consequently in interpretation, often have a physical basis, as well as, or preliminary to, any established school habit. The fundamental technical qualities desirable for any executant are, of course, relaxation, with the production of an easy vibrato, a fulness of tone, a smooth progression or shifting from one position to another, and a malleable bow. But there are most excellent and accomplished players who suffer from a natural stiffness; either they have never been able to overcome it or they have never realized how it affects the music. A quick, nervous vibrato produces a pinched, not a full tone, a sharp quality which is liable to affect the intonation. Cramped shifting is awkward, tends to let intermediate tones be heard, or to much sliding, which as we shall see, is not desirable in quartet technic. There is a school which produces a physically adaptable type of playing and another which, with a sentimental propensity for sliding and a less well disciplined bow, is not so readily worked into the finenesses of ensemble style. The two do not mingle well, because of the different results in tone-production, phrasing, etc., nor would they be likely to be sympathetic in their points of view on execution, in the whole or in detail.

The quartet-player by profession knows the difficulties of finding the right group of personalities, quite apart from artistic and technical equipment. The amateur knows the discomfort one inharmonious player can inject into a gathering. Whatever the prerogatives of the first violin, a quartet is a co-operative enterprise and unless four persons can sit at a rehearsal with a common ideal and in an understanding spirit, they can produce neither a perfect nor a sympathetic ensemble.

Chapter IV.

TEMPO AND TEMPO MODIFICATION.

Music occurs in time: tempo is the pulse governing the lapse of that time. It binds rhythm and phrase and harmony in continuous progress to a whole. It therefore controls the life of a piece. Mozart considered it the most important element of a musical performance.

A tempo cannot be arbitrarily fixed. The composer, hearing two different interpretations of his work, may be definitely satisfied with one or see merit in the sentiment of each; he may even alter his own preconception upon listening to the actual performance of the work. But the musician has infrequently the privilege of playing for the composer and he has to fall back upon written instructions and perhaps metronomic indications. On a first reading he will be helped by a glance through the score, appraising the likely speed of the *quickest* notes that occur in it, for there is a limit to the speed at which they may be effectively taken; also by noting the *harmonic texture*, for simple harmonies may be grasped at a more rapid passing than complex ones. These things may give him a hint as to how fast an Allegro or how slow an Adagio is intended. His final criterion is, in any case, the *sense* of the theme or phrase in the music itself. Only *experiment* and familiarity with the composition as a whole will give him this and help him determine his tempo. After which, the test of much playing may cause him to alter his interpretation; or he may find that circumstances—such as acoustical effects of different places—affect the distinctness or carrying power of the sound, so that he must be sufficiently resourceful in handling his tempi to keep his performance up to the mark, whatever the demands made upon it.

The freedom of experimenting may seem on the one hand to leave too much latitude to the individual and on the other to give him too little definite assistance in clearing up strange matter. But he will find a guide for either case in tradition

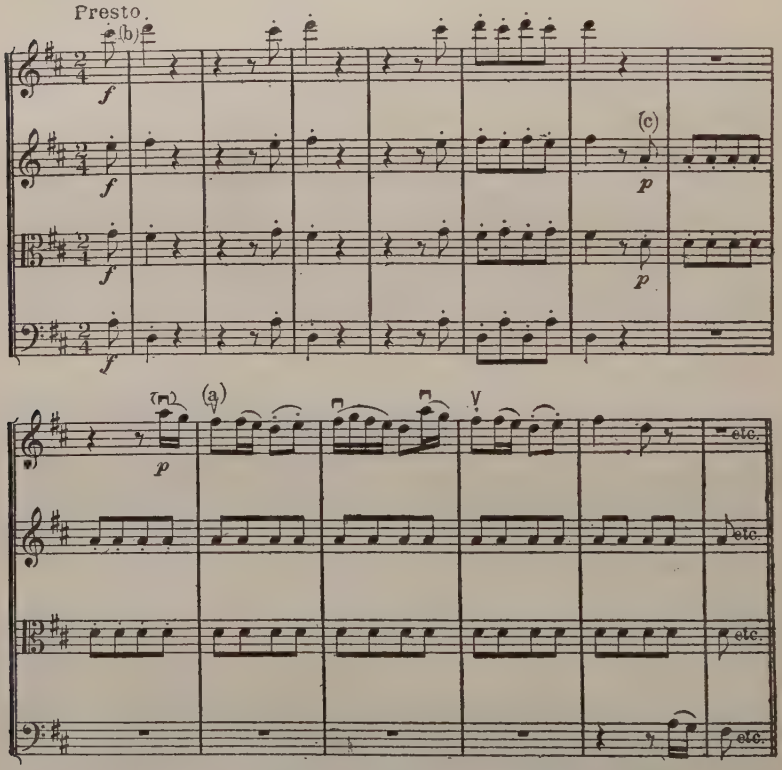
and in musical style. He knows that the dignified Allegro of Bach's day is not necessarily the same as that of a lively last movement of a Haydn quartet; a Mozart Andantino or Allegretto moves more lightly than a Brahms; there is the slow Adagio of the full phrase and large emotion — Beethoven's type, and the more fluent Adagio that needs a freer, more elastic treatment—Mozart's type; there are Vivaces of every speed—*non troppo*, *assai*, *molto*—indications which no metronome ever could determine, but which the *style* of the music does.

The tempo once determined, a thousand dangers threaten it in the course of performance — of dragging in slow movements, running away in fast ones, of unsteadiness when scope is given to the natural demands of expression. The ideal slow tempo would be one that *keeps moving* without losing the slow spirit; the ideal fast tempo, one that keeps steadily brisk without *hastening*. Tempo is not to be mechanically maintained, as by the metronome which may state the single rhythmic unit but proceeds irrespective of the essential subtleties of musical sound. The well-maintained tempo leaves the music all fulness of dynamic variety, all fineness of phrasing—the dilations and contractions of pulsating life—without destroying its continuity, its perfect coherence.

I. A Presto movement (let us take, for example, the last of Haydn's quartet, op. 76, no. 5) starts off in the approved snappy tempo, but presently it seems to have lost vitality, and when it is done a not altogether satisfactory impression remains, as of an unsteady enterprise that finally made port brilliantly enough but only by a last violent effort. It is possible that in studying the movement (or in reading, where technical difficulties impede) the slow working-out of passages has bred an irregularity in the whole which may be cured by a brisker, fresher quality throughout, in which these passages shall slip quietly into place, clear but inconspicuous. But how is this quality to be produced?

Ex. 1: The *prompt inset* of each instrument is most important in maintaining tempo. The first violin should enter on the dot with the theme at (a) and the cello in its turn:

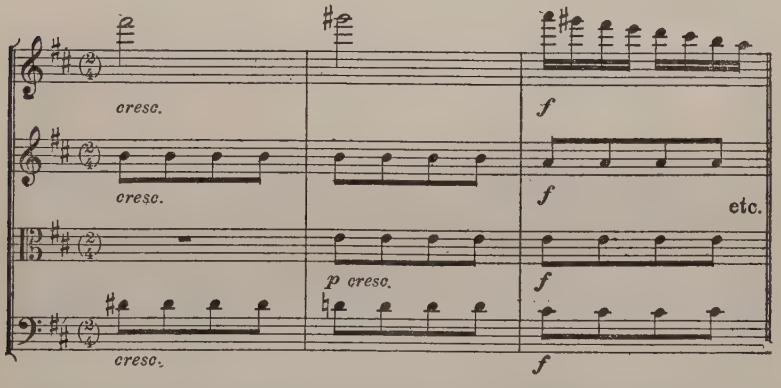
(FIG. 1)



The instruments which carry the accompaniment over blank spaces between melodies are responsible for the *immediate* announcement of the tempo (as the second violin and viola at (c). The only guarantee of a prompt inset is *to have the bow ready to drop on the string.* Each player is part of a whole that is already under way, continuously going, and the fraction of time it takes to start the sound of his voice may already make his entrance *sound too late.* The expert quartet-player is forehanded: with his bow near or on the string he starts his tone almost *before* the beat, so that it sounds *on* the beat and no precious instant is lost in preliminary motions. (See p. 32.)

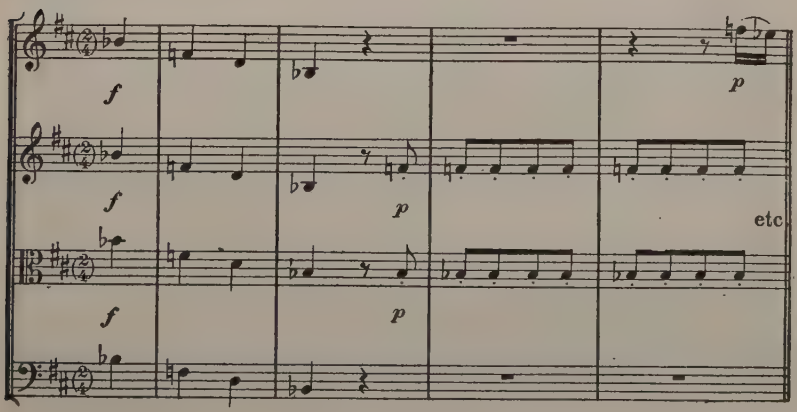
Ex. 2: Immediate *picking-up* of the tempo is necessary *after* places which for their musical value demand a slight broadening. In Fig. 2 the forte needs to be definitely established by a slight broadening of the first couple of high 16th notes, but the return to the absolute tempo must then be accomplished in the space of the very next 8th, so that the third and fourth 8th of the measure may be as lively as ever:

(FIG. 2)



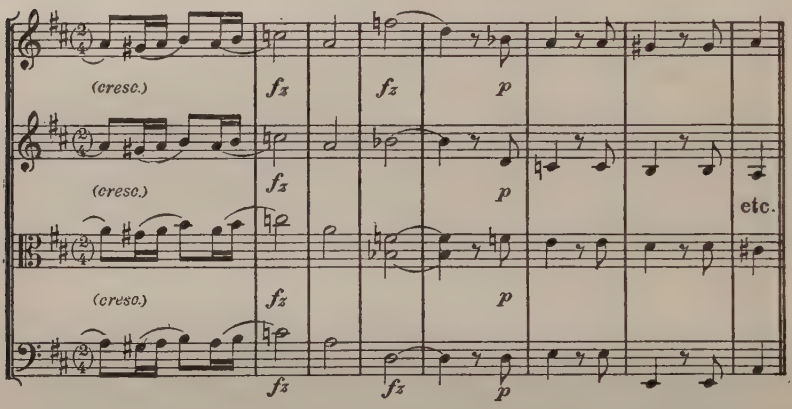
Shortly after this the first half of the movement is closed, and there is an interlude finishing in a descending chord, forte, upon which the middle voices restate the accompaniment to the theme. This is their oportunity to check up on the general bearing of the tempo and give it a fresh impetus.

(FIG. 3)



Ex. 3: The reverse is also true. In Fig. 4 the unison, crescendo, naturally *increases slightly* in speed, the accented half-notes, however, need to be *held back* for emphasis; therefore, at the piano, the recurrence of the characteristic figure, the tempo should be immediately restored:

(FIG. 4)



Ex. 4: A rapid theme is liable to sound, if at all unsteady, as though the notes were falling over each other in their effort to be quick enough. The only salvation is in observing *the full value* of each note and group, testing them to be sure no notes are slighted. This does not mean that such a theme as the one in question (Fig. 1) should be reduced to sounding mechanical. Its *natural action* should remain: the two 16ths belonging to, and heading towards, the following eighth. If bowed as indicated the proper effect is more easily preserved.

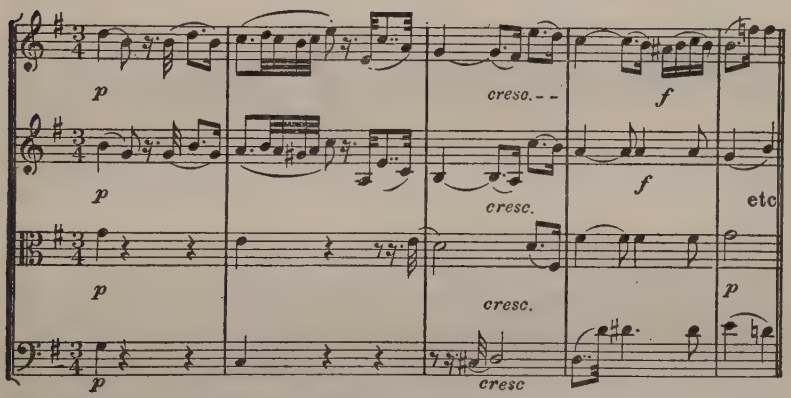
It is often helpful, where rapid notes of various denominations occur interwoven through all the voices—16ths against dotted 8ths or syncopations, etc.—to practice such passages first slowly, then up to tempo, *all in the smallest denomination.* Exact values and rhythmic relations are thus established and a clear and steady ensemble made possible.

II. In slow movements some quartets incline to very slow tempi, others to slightly faster, but the essential spirit is to be preserved in the one case without dragging, in the other without unsteadiness. An Adagio like that of Mozart's quartet in D

(K. 499) requires positive liberty of handling, but all within the meaning of an Adagio, within the frame of the measured tempo.

Ex. 1: As in the Presto just discussed, it is important to observe full value in all melody tones and in melodious bridging fragments to give breadth to the music. The importance may then be well grasped of observing *accuracy* in the *comparative values* of the small notes—16ths or 32nds. A casual reading or careless playing does not reach into the innate interest of the opening theme nor achieve the singing beauty which is characteristic of it:

(FIG. 5)

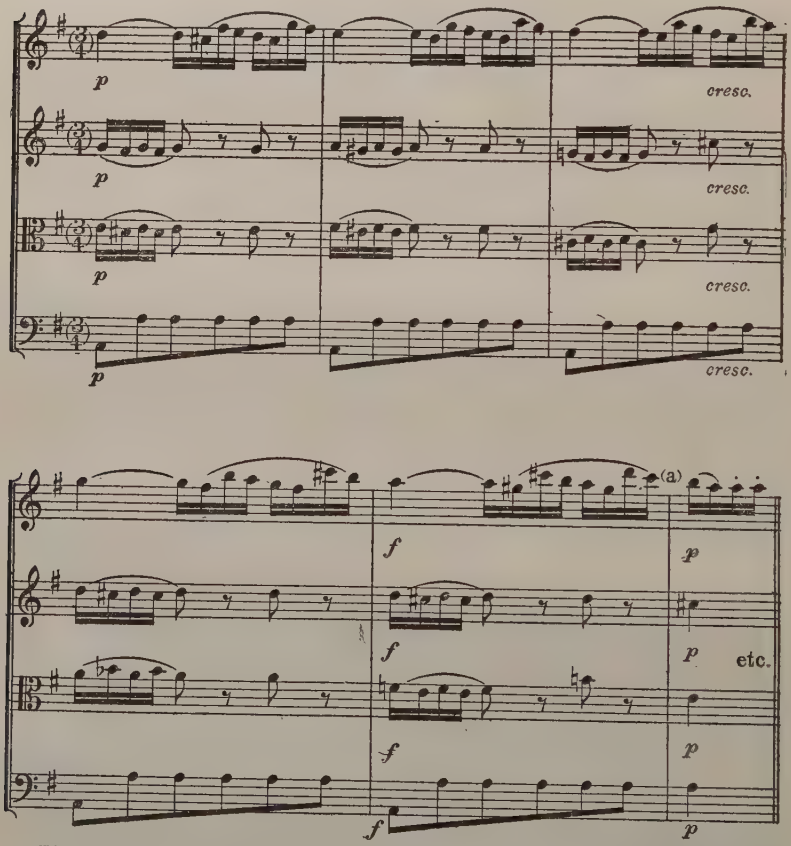


Ex. 2: Although the thematic group of four 16th notes (see Fig. 6 (a)) which is characteristic throughout the movement should not be hurried or made unsteady, it becomes very monotonous if, in preserving their full value, the two separated 16ths are always played *all alike broad*. Variety may be introduced by playing some shorter, more *slightly*, though still *rhythmically*. Where these notes are of *harmonic* importance they should of course be broad, but where they are not, they may be treated as suggested.

Ex. 3: Harmonic sequences, if taken literally in tempo, seem to impede the movement forward of the music. They demand a gradual, *subdued acceleration* or fluency, which may be resorted to without *hurry*. They should remain calm,

since restlessness or excitement would destroy the Adagio spirit; and should broaden again into the original sustained tempo as soon as the monotony has been relieved (in this example, the three other voices easily follow the freedom of the first violin helping to keep the tempo broad by a slight *tenuto* on the first 16th of each group):

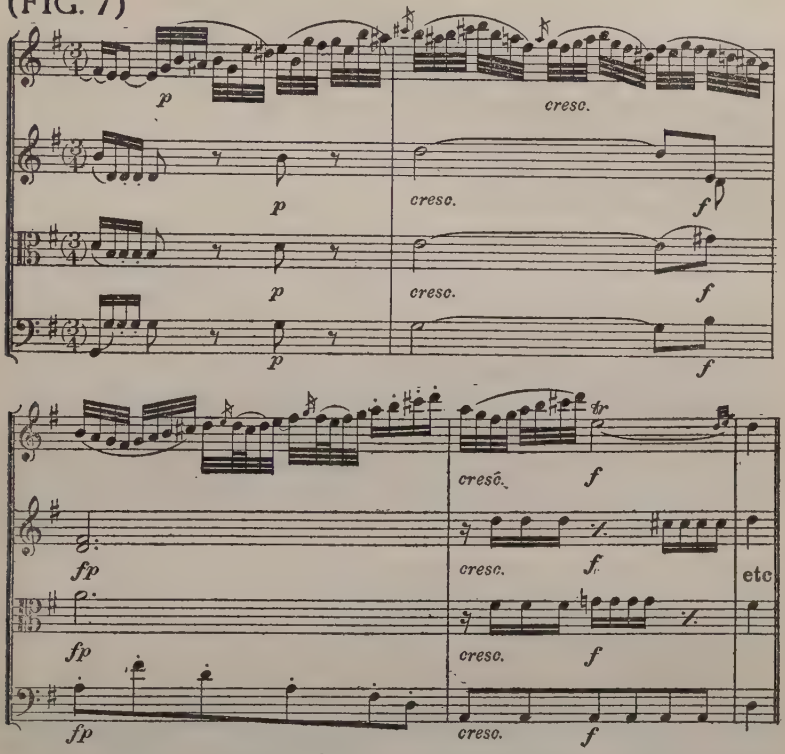
(FIG. 6)



Ex. 4: The first violin's passages in 32nd notes are practically cadenzas and as such need grace and variety. Freedom is again legitimate here, since it makes up for the fragment of motion lost at the start of each group by the necessary pause for clarity (see Dynamics), and it should be promptly *paid back* by broadening to the cello's steady 8ths and by

the natural broadening of the crescendo-to-forte finish of the phrase:

(FIG. 7)

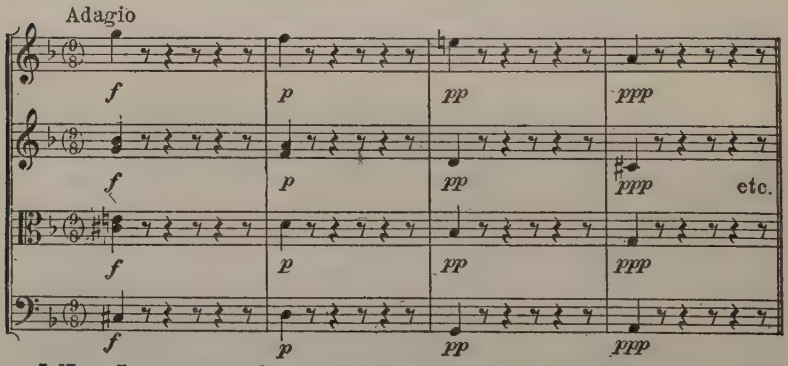


III. Any movement, then, as it progresses through thematic evolutions and entanglements is liable to lapse in some manner from its original freshness of tempo. Music of the romantic type, especially certain modern music with its inclinations to be fragmentary and its acquisition of effect through *treatment* rather than through the artistic demands of the intrinsic interestingness of the writing, requires an *exaggerated degree of give-and-take*, a highly alert sense for the *constant resumption* of tempo. This is true of both the Debussy and the Ravel quartets. In the latter especially, give-and-take is needed *phrase by phrase:* that is, each phrase must be clear and run to its full expression, therefore each subsequent phrase must *pay back*, by prompt entrance with the original characteristic tempo, any liberties allowed its predecessor.

IV. Instead of providing a backbone of support, *accompaniments* often influence a tempo adversely. The monotony of a repeated figure or series of notes hypnotizes the player until he does not fully control the motions of his bow or fingers and his work then becomes irregular—falls behind the music it is supposed to be assisting or hurries ahead of it. Passages of this sort should be critically watched. A good accompaniment is one which remains always *alive to what it accompanies* (see Phrasing, I, ex. 2).

V. It is customary to speak of "feeling" a tempo: studious counting alone does not always produce the spirit, though it may control the performance, of the movement forward. This is illustrated in the difference between feeling a long measure of 6, 9 or 12 eighths *in eighths*, and feeling it in the rhythmically correct sense of its *important beats*, 2, 3 and 4 respectively. In the following measures (Beethoven, op. 18, no. 1) the movement forward would be altogether lost during the long pauses if counted in 8ths; whereas feeling three beats, and each third beat as leading over into the first of the next measure, supports the tempo so that the pauses do not sound like gaps (see also p. 97, Ex. 3):

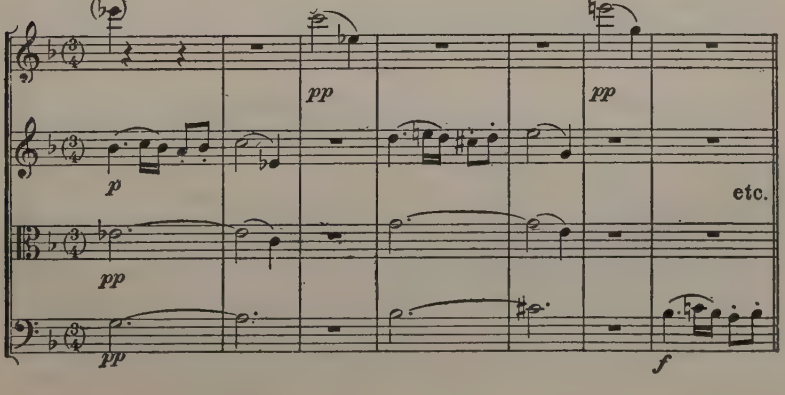
(FIG. 8)



VI. In contemplating the aspects of tempo illustrated in sections I, II and III, the distinction should at once be appreciated between the *delicately manipulated give-and-take treatment* therein outlined and any *actual ritardando* or *accellerando*, or even *rubato*. These last are all much more powerful effects and much less subtle. The rubato, as commonly

understood, is a very much more marked freedom of treatment, and applies rather to passages of *heightened* expression or passion; it is a bolder liberty of phrasing than the delicate manipulation under discussion which, while based on phrasing (the natural demands of expression) should be so fine as to remain as a means *practically unnoticeable.* The rubato is used by the soloist when and as he pleases, but by the quartet-player it is necessarily more circumspectly used, rarer and more subdued, to avoid the ungraceful heaviness which the increased number of voices is liable to create. Debussy uses the indication "a tempo rubato," but since Ravel does not, it may be assumed that even in his elastic phrases he does not intend so *obvious* a degree of freedom.

None of the given suggestions for broadening or easing off the tempo or preserving the movement forward constitutes so much as even a slight *ritard* or *accellerando.* The true ritard is practically always marked even in the earlier quartets and has rarely to be introduced by the interpreter. Its degree and extent—whether great or slight, gradual or sudden—is determined (unless marked) by the *sense and style of the music* alone. Beethoven writes a whole quartet (op. 18, no. 1) without a single ritard, while one movement of a modern quartet contains at least a dozen ritards and accellerandos of different degrees, besides actual tempo changes. Beethoven, whose music is still of the straightforward style which has come to be known as classical, practically replaces these means by his remarkable use of dynamics, and this should make one all the more wary in handling his tempi. In the following measures (op. 18, no. 1): (FIG. 9)



there is usually a tendency for the first violin to slow up on its *pp* echo of the second violin's sixth extending the original motive. But if this tendency is humored, the second violin involuntarily repeats its motive a little slower, with the result that the second echo by the first violin comes out *slower yet*—in fact, the whole phrase makes a *ritard*, which was evidently not Beethoven's intention. If the first violinist has his *bow near the string*, his entrance will be punctual, the second violin can repeat its figure in tempo, and the very slight drop musically necessary to the phrase will be achieved in the final *pp* and the breathing-space before the forte inset of the cello.

The examples used in this chapter will be frequently referred to in the further analysis of our subject, showing how closely the maintenance of tempo is allied with the other problems of the quartet-player's musical expression.

Chapter V.

PHRASING.

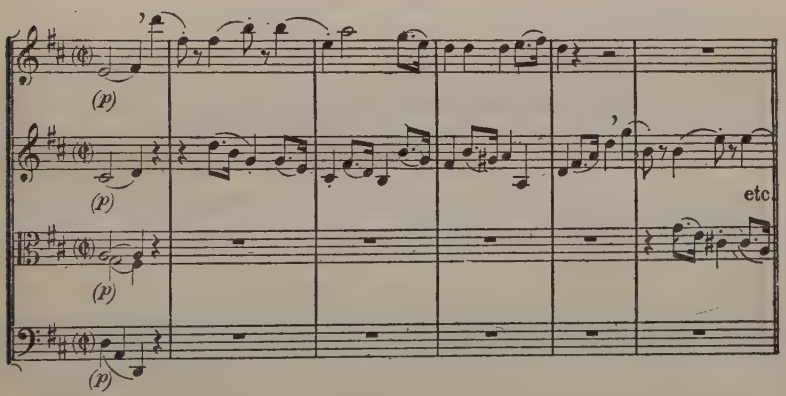
The need for homogeneous phrasing throughout the four voices of a quartet has already been mentioned. A solitary player may improvise any effect he choses on the inspiration of a moment, but in a quartet the same phrase is likely to occur in whole or in part through each of the voices and its exact handling must therefore be carefully worked out beforehand in order that it may be treated as uniformly as possible. This uniformity will be subject to many considerations: of color, register, variety, texture, the technical delivery of the different instruments and the sense of the music, but the principle remains the same.

Phrasing, which must be clear in any solo work, has added demands made upon it in quartet-playing. The four voices must fit together to produce much more complicated music with the same distinctness, while things that sound clear from the single player do not necessarily carry clearly to the hearing distance of an audience from four players. Only with a foundation of clear phrasing is it possible to develop the dynamic and color varieties of quartet music.

I. Each phrase or figure should be *well finished* in itself, not only for musical clarity and carrying power, but also so that it may be used, molded, adjusted to best advantage in its recurrences and developments. It is then easily recognizable through the harmonic and textural complications of the music and easily woven through them. Its effect will be to throw a passage *into relief*, giving plasticity to the music, modelling, variety.

Ex. 1: To effect this finish an *imperceptible wait* is often necessary, to let the resonance of one phrase or figure die and to mark the beginning of the next, so that the ear may be prepared to take on the new matter.* The following phrases (Mozart, K. 499) need to be presented thus distinctly: the comma marks the imperceptible wait, which is especially important in the first violin part because of finishing the preceding phrase, and in the second because the same instrument finishes one phrase as a secondary voice and starts the next as leading voice:

(FIG. 10)

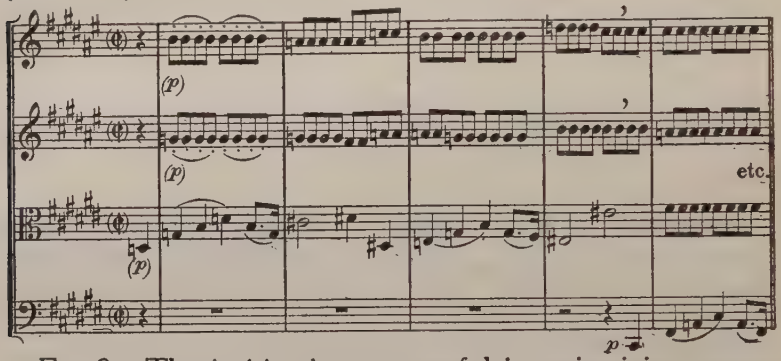


Ex. 2: The accompanying voices of the violins (Haydn, in D, op. 76, no. 5) should assist the finish of the viola's solo and the start of the cello's solo by the *slight indication* of such

* In cases where even so tiny a hiatus as this seems undesirable—as when the new matter is not so different from the preceding or must be prompt to the point of exaggeration—a similar effect of clarity may be obtained by shortening the last note of the old instead of delaying the first of the new.

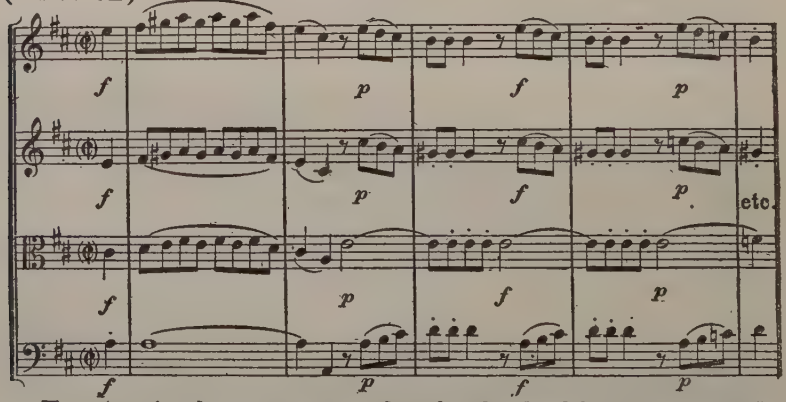
a wait, instead of continuing their accompaniment in humdrum fashion over the instant of the change:

(FIG. 11)



Ex. 3: The *incisive inset*, so useful in maintaining tempo, is also of assistance in defining phrase-groups. It is indispensible to the immediate carrying of the sound to a distance and also to the intelligibility of voice-leading. In the following passage (Mozart, K. 499) the E of the viola is an important note, entering as it does alone, and while in the *forte*, it is easily enough heard, its *piano* entrances are lost unless the inset is distinct:

(FIG. 12)



Ex. 4: A phrase may need to be finished by *dropping the tone*, not retarding but diminishing the volume in accord with the dropping cadence of the phrase-line. Thus in the final measure of a slow melody (Beethoven, op. 18, no. 2), the first violin's final C should not be held long, so that the sound

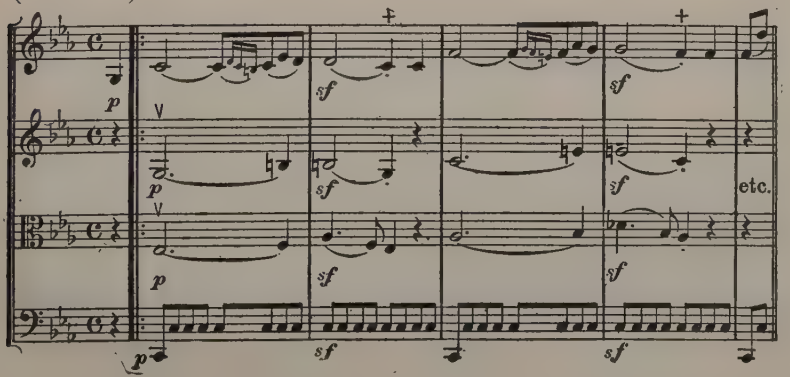
may die off before the new entrance of the melody on the last beat of the measure. The 32nd notes of the viola, moreover (though not its final E, which is less important than the violin's tonic C) should sound above the held notes of the violins; also in the third measure its F♯:

(FIG. 13)

In the third measure of the same phrase this letting-off would not be so complete because the semi-cadence concludes only half the phrase and the resonance of the closing eighth leads over to the resumption of the melody on the eighth-note F.

Ex. 5: Where one phrase-group rapidly succeeds another the final note of the first may need to be actually docked of a little of its written length lest, if it be held literally, it become too ponderous for the sense of the phrase, obscuring the next entrance. This (*not* a detachment) is the meaning of the dot under the third beat of the second and fourth measures of the opening phrase of Beethoven's fourth quartet (op. 18):

(FIG 14)



II. Distinct and unhesitant *voice-leading* is one foundation of clear phrasing. It goes without saying that each voice as it has the melody or characteristic figure of a phrase should be heard more distinctly than the others. But it requires careful and skilled adjustment to bestow the right emphasis on *fragments*—sometimes no more than one or two notes, or even a solitary tone in an inner voice—which are of melodic or harmonic import and which, while containing the essential characteristic of the moment, should yet not be unduly conspicuous but always quietly interwoven with the other voices. It is a great help in studying a score to blue-pencil such fragments throughout, clarifying to the eye the details of structure, and having then a definite picture of what to listen for in the playing.

Ex. 1: Throughout the opening phrase of the Adagio of Beethoven's quartet in E flat (op. 74) the melodious fragments of the lower voices must be heard in the undercurrent *(mezza voce)* to the high melody of the first violin: the chromatic progressions for the sake of harmonic distinction, the sixteenth-note figures because they are characteristic, the frequent sixths and thirds because of their melodious contribution to the harmony:

(FIG. 15)

The three lower parts, indeed, are almost complete in themselves, affording an illustration of the equal value of all four voices in the quartet texture.

Observe that not always *every* note in a group is important. In the second measure the viola's E flat-E should be brought

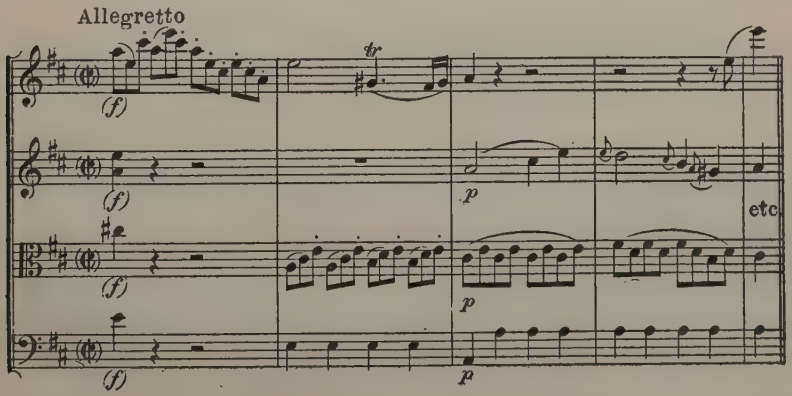
out, whereas its F-E flat should give place to the melody-tones D flat-C of the violin.

Ex. 2: A few notes (sometimes only a single tone) *leading to a resolution* may have to be brought out with what at first seems exaggerated strength in order to clear the sense of the phrase, as the viola's notes in the following quotation (Haydn, D, op. 76, no. 5):

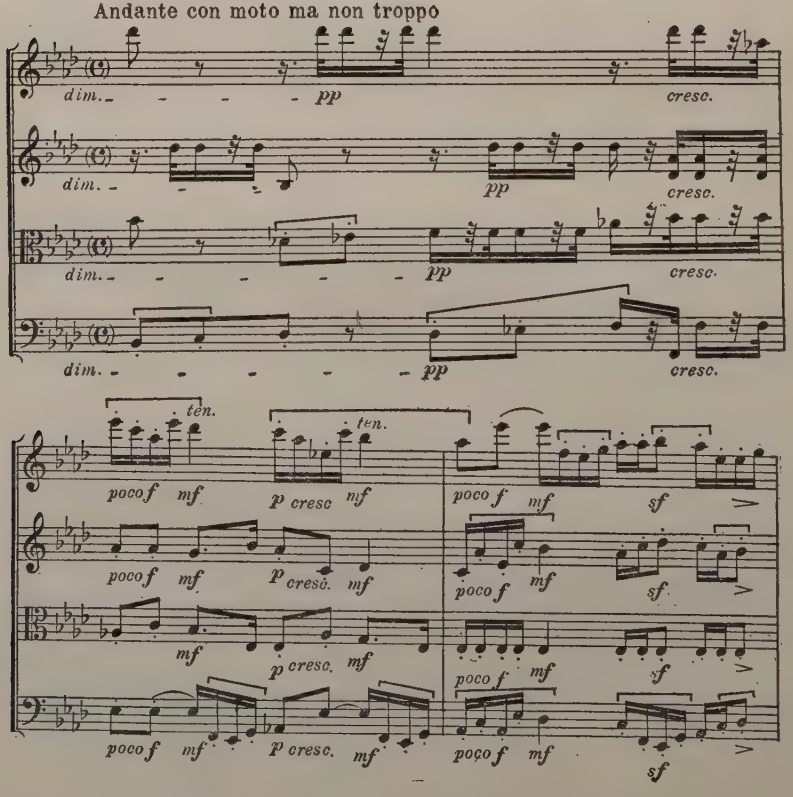
(FIG. 16)

Ex. 3: Where two voices overlap, one finishing, the other beginning a phrase, the former should yield to let the entrance of the latter be heard. In the following example (Mozart, no. VIII) the first violin's final A is not so important as the entering A of the second violin and should be dropped to practically nothing:

(FIG. 17)



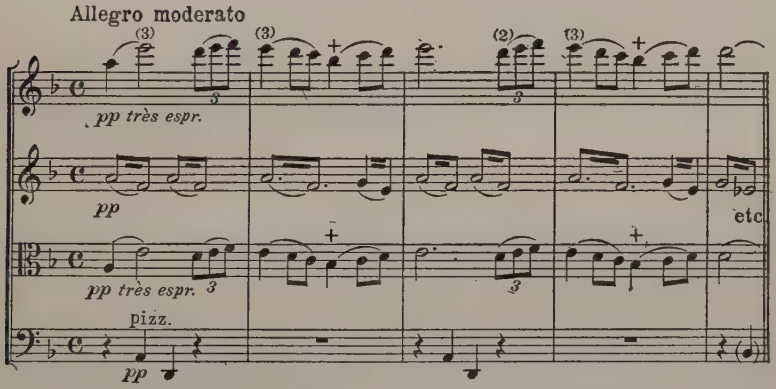
Ex. 4: The late quartets of Beethoven offer the most astonishing examples of voice-leading in all the literature, passages which require the most careful study and painstaking execution. The interesting thematic matter in the measures quoted below (op. 130) has to be picked out as in a puzzle. First, the 8th note progressions between viola and cello should be heard, but of each group only the *first two*, the last giving place to the entrance of the *first* in the other voice. Then, the characteristic figure in 16ths and the tenuto quarter-note are to be picked out, first between first violin and cello, then between cello and second violin. Observe that on the second beat of the last measure the cello's D flat is more important than the second violin's B flat, whereas on the last beat the second's B flat is more important than the cello's D flat; *because* the straight statement of the first violin in the preceding measure gives the progression: E flat-D flat-C-B flat: (FIG. 18)



III. The phrase-line is a suceptible thing (as we shall see in examining questions of bowing and fingering) to any mechanical process. Involuntarily quite perverse effects may be produced. It is therefore essential to consider the *emphasis* given certain tones in a phrase. A high spot, or a resonant low spot, may sound disproportionately loud. Therefore it is well to measure the *natural emphasis* of the tones, due to their position in the phrase, with *the composer's intention.* They may or may not coincide, but this point must be made clear.

Ex. 1: In this melody (Ravel) everything tends to emphasize the B flat: it is the lowest tone of the phrase, it is the fourth scale-step approached by a whole-tone progression, with a stronger tendency to move down than up, it falls on the second accented beat of the measure, and two instruments play it in unison. If left to itself, it sticks coarsely out of the subdued *pianissimo* feeling of the phrase, in which it is not even a rest-point. It has therefore to be handled in such a manner that it does not attract any more attention than the rest of the tones of the melody (see Bowing, p. 41):

(FIG. 19)

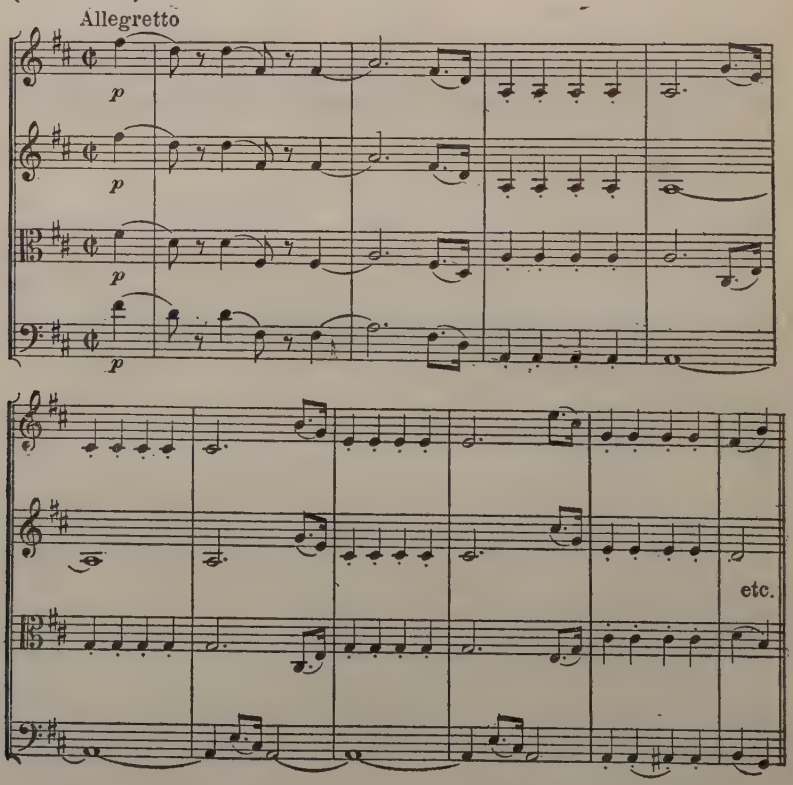


The above excerpt from Quartet by Ravel used by permission of A. Durand & Cie., Paris, France.

Ex. 2: The opening phrase of the Mozart quartet already cited presents a problem of *counteracting a natural accent.* The first and third beats of the first measure are purposely written as 8ths followed by a rest: evidently Mozart's idea was not to remain on those tones which, being on accented beats of

the measure, would gain more natural weight than his feeling of the phrase called for. But even as written, played short, they are liable to sound accented or jerky. How to avoid this? By thinking slightly more *emphasis* on the preceding quarter, which is purposely written long but, being on the weakest beat of the measure, needs a little added significance to make it as convincing as, if not a little more important than the succeeding 8th. The problem of emphasis continues through the whole phrase. For now the low unison tones, first repeated ♩ ♩ ♩ ♩ and then held 𝅗𝅥., cause this dull figure to be prominent to the cost of the melody's flow and interest. These last, then, would be best served by minimizing the importance of the quarter-notes and dotted halves and bringing out the little thematic figure which remains characteristic throughout the piece:

(FIG. 20)



It is well to consider with every sort of thoughtful and reasoned—not erratic—ingenuity such problems as the foregoing. Style, tradition, musical custom, offer many solutions, but it is after all in the freshness of his own contribution that the quartet-player must keep his work alive.

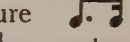
Bowing.

Identity of bowing, wherever possible, is one of the requisites of a good ensemble. It is not only that divisions of the bow, slurs, staccatos, legatos should sound homogeneously throughout the four voices. Nor because of the aesthetic effect upon the listener, who is also a watcher and to be influenced by harmonious motion and disturbed by irrelevant, contrariwise, disconnected lines. Ensemble, and the quartet in particular, teaches the full significance of the bow *in phrasing*. Upstrokes and down-strokes have different values; insets and finishes also. These affect both the production of tone and the style of the piece. It is necessary to dwell somewhat emphatically on these points which are perhaps no more than inherent in any good violin technic because their influence on the sensitive structure of the quartet is greater even than on any solo technic, and moreover when four instruments are involved even more careful manipulation is needed to keep the balance and the proper delicacy.

The qualification—*wherever possible*—is necessary for several reasons. It depends on the technical construction of the instrument and on the effect to be produced whether the bow is actually drawn with the same stroke. The violins usually would be expected to bow identically, the viola, being the same type of instrument, usually with them. The cello, on the other hand, may have to use an opposite stroke to produce the same sort of tone. Circumstances, also, may require dissimilar bowings for better effect: register, volume of sound, convenience. But generally speaking similarity is most to be desired.

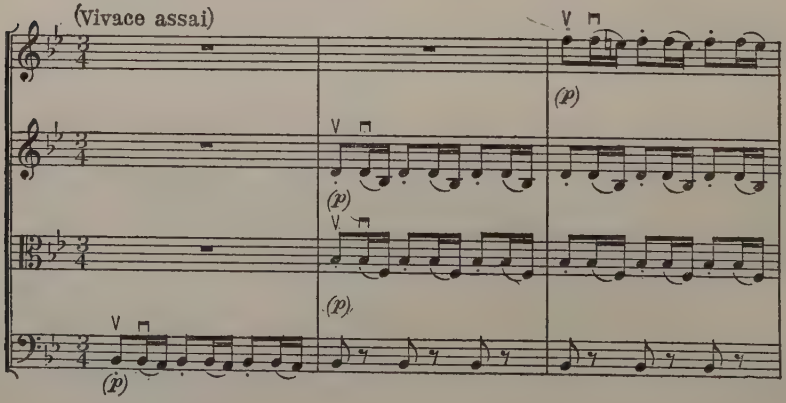
I. The *amount of bow* and the *sort of stroke* used have considerable bearing on the manipulation of the phrase.

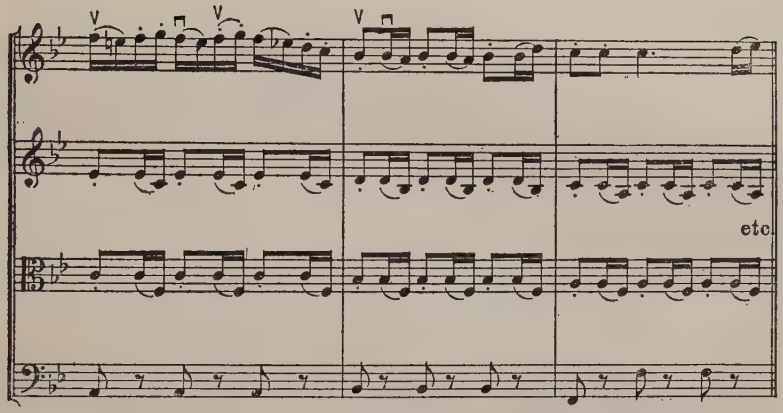
Ex. 1: In the Ravel melody just quoted (Fig. 19) the troublesome B flat is affected by the amount of bow used. To avoid its undue prominence in the phrase, and more especially as the voices playing it are doubled, *less* bow should be drawn than it is the tendency to draw. Similarly, the triplet following the dotted half-note sounds pushed and prominent unless the long note is taken with only so much bow that the return stroke provides enough and *not too much* bow for it.

Ex. 2: Often notes that fall on an unaccented beat, especially little notes naturally taken upbow, are neglected to the detriment of the phrasing. They may be easily restored to the proper emphasis simply by taking them downbow, thus removing one of the natural obstacles against which they have to sound. Of such a nature is the characteristic figure  in Fig. 10: in the upbow it sounds weak and since the quarter note on the accented beat has no need to be reinforced by a downbow, a more just emphasis may be obtained by reversing the ordinary strokes.

Of a similar nature is the following figure (Haydn, op. 64, no. 3) which may be converted from a dull motion to one piquant and elegant in character merely by taking the 8th-note lightly in upbow and the 16ths downbow with that little natural skip which comes when the bow is dropped on the string (just above middle, bow drawn very lightly, not raised any higher than necessary):

(FIG. 21)

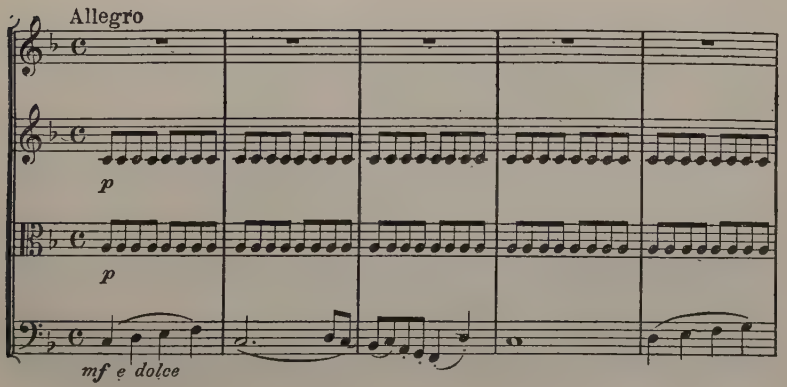


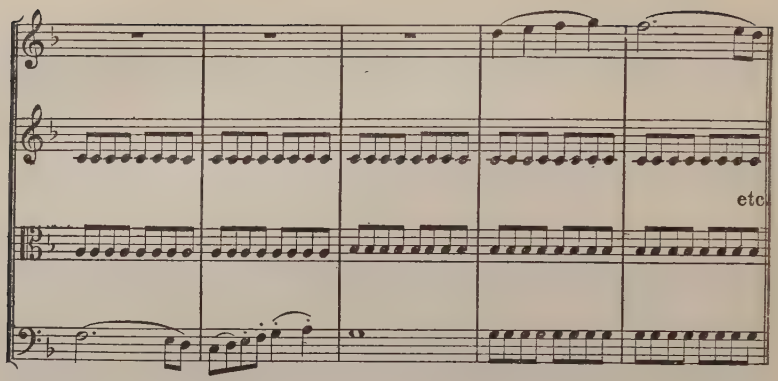


II. A *smooth bow*, in which the changes are not noticeable, is one of the requisites of a good violin technic. Where four voices are combined and every defect is so much the more apparent, it is of the greatest importance in phrase-adjustment.

Ex. 1: No bowing could be too smooth for the following passage (Beethoven, op. 59, no. 1) where bar-lines mean nothing and need to be thoroughly suppressed:

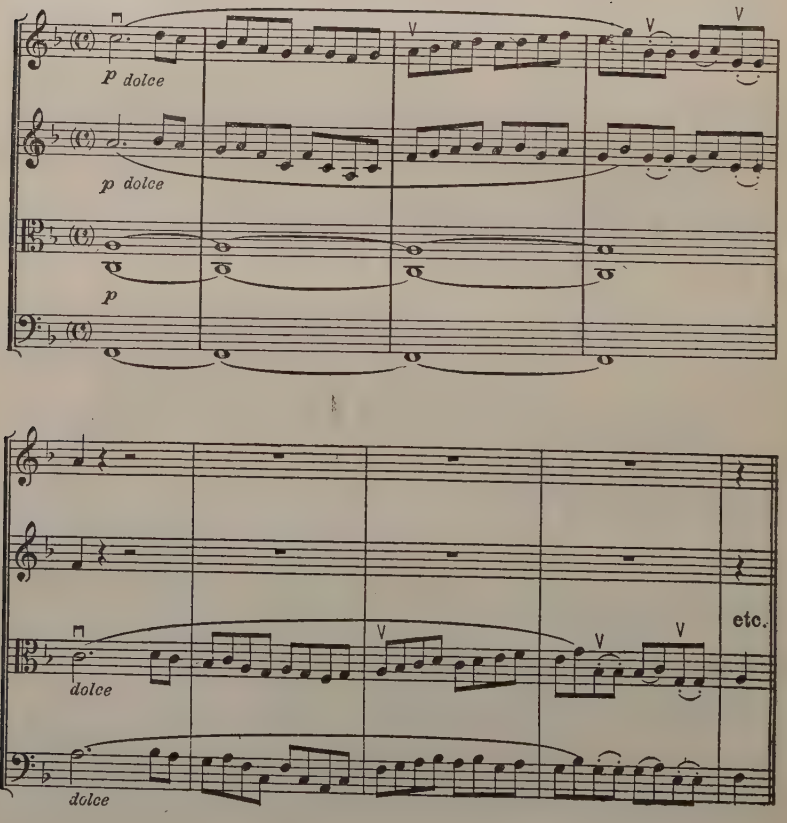
(FIG. 22)





and again in the duets:

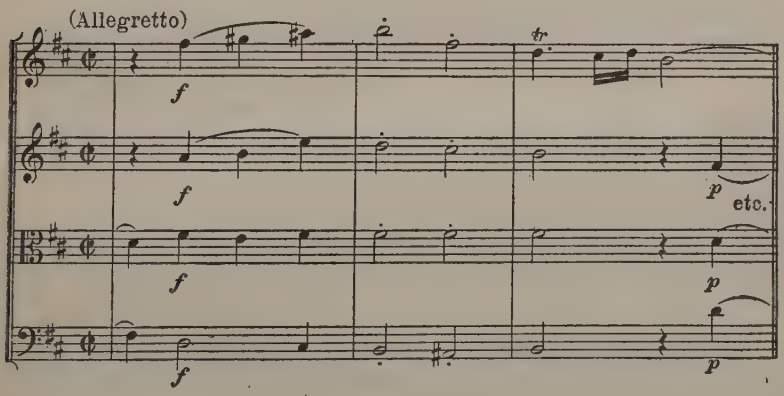
(FIG. 23)



III. But there are also phrases in which the *change of bow* indicates rhythmic accents or thematic groupings and has therefore a musical purpose. It must never be forgot that distance often requires exaggeration: that there are things which sound clear to the player himself or to his colleagues but are lost outside a very small radius. Hence the importance of detail in quartet practice; hence also the importance of so small a thing as a change of bow in acoustical clarity.

Ex. 1: There is no written or intended accent on the half-notes in the following *forte* phrase (Mozart, K. 499) but if played ahead without special attention the phrase is flat and meaningless. The entrance of each half-note, and indeed of the first three introductory quarters, following suddenly as they do upon a *piano*, needs to be very marked, attacked even to the point of lifting the bow between them to get the inset clear (this is probably the meaning of the dots over these notes in the score):

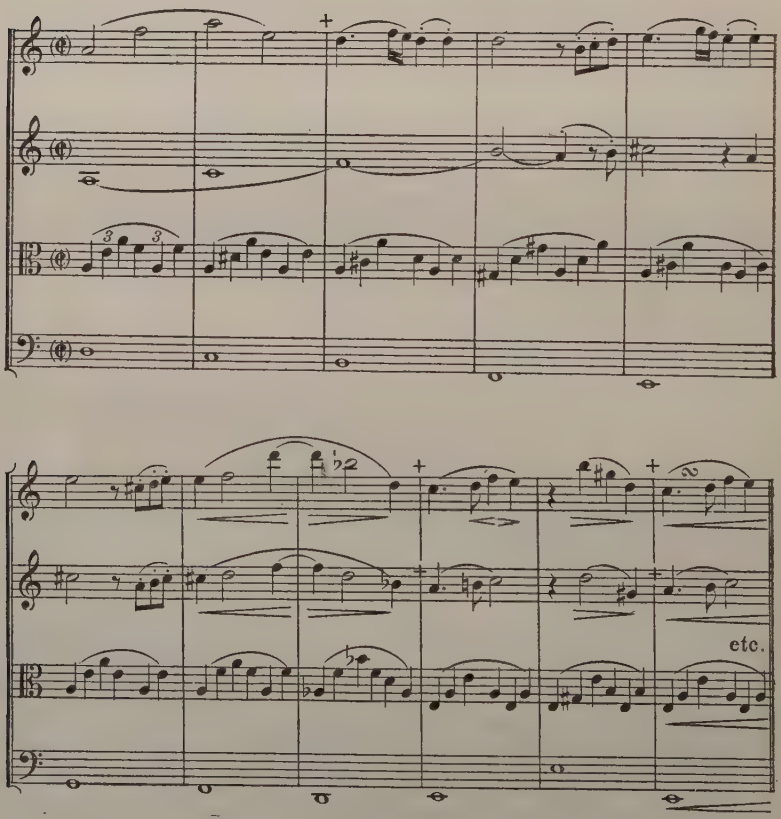
(FIG. 24)



Ex. 2: Brahms insisted very much upon the importance of distinct bow changes where these are characteristic of the phrasing. In his own music they are to be heeded most particu-

larly. Just as, when he intends a legato he marks a slur sometimes including several measures (more than can be taken in one bow, therefore the change to be imperceptible) so by his shorter slurs he indicates intentional grouping of notes to be distinctly executed. The opening measures of the A minor quartet at once take on more character if, without interrupting the flowing progress of the melody, the inset of the D is heard, and again that of the C, which does not belong to the preceding measure but starts fresh after the :

(FIG. 25)



Again, four measures later, there should be a slight lift of the

bow to point the inset of each syncopated note (and especially at +) in contrast to the subsequent real legato:

(FIG. 26)

Fingering.

Identity of fingering is also desirable, for the same reasons as that of bowing. Again the rise and fall of the phrase-line, the prominence of high-spots, the weakness of low-spots, is affected by the technic of the tone-production. It is not only a question of skill which the individual may master to the extent of virtuosity, but of the fine points which are so much more sensitive in a quartet than in any solo performance because four must play with the finesse of one.

Fingering is usually regarded as a technical concern of the solo instrument. Therefore the player has a routine knowledge of certain types of fingering before ever he comes to do quartet work. He now finds new problems, very delicate ones. A change of position, a slide, the color of the string played upon, has new and more considerable consequences. Every technical motion must be subdued, unnoticeable. One may not play a brilliant technical passage in the same style as alone because it is involved with the other parts playing at the same time. To be a brilliant quartettist is another matter from being a brilliant soloist, and the one does not necessarily succeed in the role of the other.

The type of fingering required in quartet playing is that which will do the most with the least effort. Certain general principles might be set down as desirable:

(a.) Staying in the position as much as possible, reaching up and down: in other words, extending the range of the hand.

(b.) Generally speaking, as little shifting as possible, and always with the utmost smoothness and rapidity of motion.

(c.) Attention to changes of string according to the color and quality desired; and to the combinations with strings of the other instruments. It will frequently be found that the tone of the first position, often avoided in solo playing as less expressive than that of higher positions on lower strings, is preferable to these in combining with the other instruments and in producing clear harmonies.

These would appear to be no more than requisite in a good solo technic. It is in the manner of their application that they will be affected by quartet style. That style should affect the player's technic, not be affected by it.

It is impossible to set down any one fingering of a given passage. Individuals will differ in their choice of fingerings* because of personal idiosyncracies and preferences founded on physical equipment. One will find more strength in his third finger than in his fourth in high passages, jumps or reaches; another will feel a more satisfactory vibration in a certain position with his second than with his third finger, or vice versa. Joachim himself was never satisfied with a stated way of doing things and used constantly to experiment with fingerings and bowings. Individual peculiarities are undoubtedly to be considered in choosing the best way of giving value to the important tones of a phrase.

Since the fingering of a phrase cannot be determined by any rule it should be carefully considered from the point of view of the *effect on the phrase-line* of the motions of *shifting* or

---

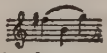
*Sometimes a fingering carefully chosen in study proves ineffective or unreliable in performance and must be revised. But to change an accustomed fingering just before performance is to invite accident; the old habit is liable to assert itself to the confusion of the player.

sliding. The Ravel melody already quoted (Fig. 19) illustrates a problem in fingering as well as in bowing. We have seen that anything that makes the lowest tone B-flat more prominent is to be avoided. Therefore it would be well to avoid *shifting to it,* since the motion of the change would throw it to the fore, even if smoothly done. The shift will have to be made in a less conspicuous spot, perhaps as indicated by the suggested fingering.

The effect of the *slide* is one of the most dangerous in quartet style. It should be considered from several angles: the style of the music, whether it is really required, whether it should be a heavy, passionate kind of slide or a light, quick one, scarcely audible yet giving warmth to the phrase. But first of all should be envisaged the fact that any principal phrase launched, say, by the first violin with great expression, is liable to occur at one time or another and in some form or another in every voice, and that a distinct slide, suitable for a solo voice, becomes nothing short of appalling when repeated over and over again. It reminds one of the limerick in which the lady desired four tickets for a train at four-four: "Not four for four-four," said the man at the door, "for four for four-four is too many." The individual must therefore be prepared to sacrifice his particular warm slide if everyone's sliding turns the music to a sentimental yowling, or to leave the privilege to that instrument in whose part, and in that part of the piece played, it is appropriate. The quartettist is tempted to say: *never slide,* because of the shocking impurities that technical item may produce in the purest of music. Let him, however, gain strength for his idea by modifying it to this: the slide should only be used when *characteristic,* and even then with reservations.

This is a matter not of individual taste but of quartet style, of phrase values. For the slide *attracts attention to the tone slid to.* The legitimate slide is one which *correctly* emphasizes the relative values of phrase-tones (see Section III of this chapter), giving warmth to an *important progression.* The slide to beware of (one overwhelmingly much heard in certain schools of violin-playing) is that *done out of ignorance* in places which do not need, and so should not have, the addi-

tional emphasis in the phrase-line, robbing the legitimate slide of its effectiveness and spoiling the real expressiveness of the music. This sort of slide seems to become a habit with some players; they let it be heard with every interval that goes out of one position. They do not seem aware that it is for the most part a technical carelessness or sluggishness, *a defective shifting.* It is an easy habit to form and, like most habits, *functions without thought.* It shows lack of critical listening by the player, and a lack of artistic refinement, since he does not distinguish between a musical effect and a mechanical act.

Let us suppose three notes:  If the B is the important tone of the group, slide to it from the F♯, by all means, but then do not slide away from it to the G; if the G is the important tone, slide up to it from the B, but then do not slide to the B beforehand from the F♯, a slide for which there is no need and which simply distorts the desired emphasis. (Beware of that defective shifting which lets an *actual tone* be heard between the two written notes because the sliding finger does not quit the string while still in motion. This is bad playing in any music.)

The brief slide of a single step up or down is not to be classed as a thing to be avoided like the melodic slide, save in so far as it may affect the phrase-value of the notes involved. It is naturally a very useful method of procedure up or down the string and of injecting life and warmth into the expression. It is well, however, to avoid sliding to a brief note which is unable to bear the emphasis without sounding disproportionately loud; or if such a shift is unavoidable it should at least be as inconspicuous as possible.

As a check to undue sliding it is useful to remember that expression is not enhanced by the slide alone: quality and warmth must first be in the tone itself, the slide is of secondary value. In the case of a unison of two voices, there may be times when both will slide but more often it is enough if one slides, and that one will be the warmer in tone or color, the soloist of the moment to whom the other will yield a little.

These considerations on the slide apply particularly to the pure style of the classics. But they are still to be thoroughly

pondered in the performance of the more involved modern works, not as hard-and-fast rules, but because they are characteristic of the ground-work of quartet style which underlies all quartet music, ancient or modern, and which without *refinement* means nothing.

Chapter VI.
DYNAMICS.

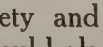
The conventional dynamical marks—*p*, *pp*, *mf*, *f*, *ff*, crescendo, diminuendo, etc—have come in for every sort of criticismcism as inadequate to convey the composer's exact idea of *how* soft or *how* loud he conceives a passage to be. Any effort to express intentions more accurately is to be desired, but descriptive phrases do not get very much nearer their object than the conventional Italian expressions of which they are for the most part merely translations into a more familiar language. The real difficulty of the problem is that *dynamics are purely relative:* relative not only to each other but to the whole music of which they are a part. The only possible explanation of them, inside the frame of the conventions, is that which *the music itself gives.*

The great need of quartet style is that dynamics should be *made the most of.* Not in mere extremes of contrast, which are no more than grotesque. But purely in the interest of the music and in accord with its style. Brilliant contrasts may be needed, or only subdued changes. A *forte* in Brahms, moreover, may be differently read from one in Mozart; or in a single work there may be half a dozen varieties of *forte*, of *piano*, and of *pianissimo*, according to the sense and relative importance of the tone. The term "poco forte" is usually misread as a degree of forte; but upon examination it will be perceived that it takes place in a dynamic setting *not* of forte but rather of piano, by which it may be taken to mean something on the order of the old Italian indication *piano ma con suono*—piano, but with sound—in other words, sounding out more than the surrounding dynamic degree. Fig. 18 illustrates this with great clearness: the *pp-cresc.-poco f* are evidently introductory degrees to the *mf tenuto* quarter-note, and this dynamic relation is consistently followed (the short space of the next

group, beginning *p*, through *cresc.*, to *mf*, the first group of the third measure going back to *poco f* and up again to *mf*).

Early quartet manuscripts, of which there is a great mass that are valuable only as records, since the music has fallen for obvious reasons by the wayside, have no dynamical indications save a formal *f* and *p*. But as the music becomes intrinsically more interesting, the number and variety of expression marks increases until dynamics are established as quite as much a part of music as the notes themselves.

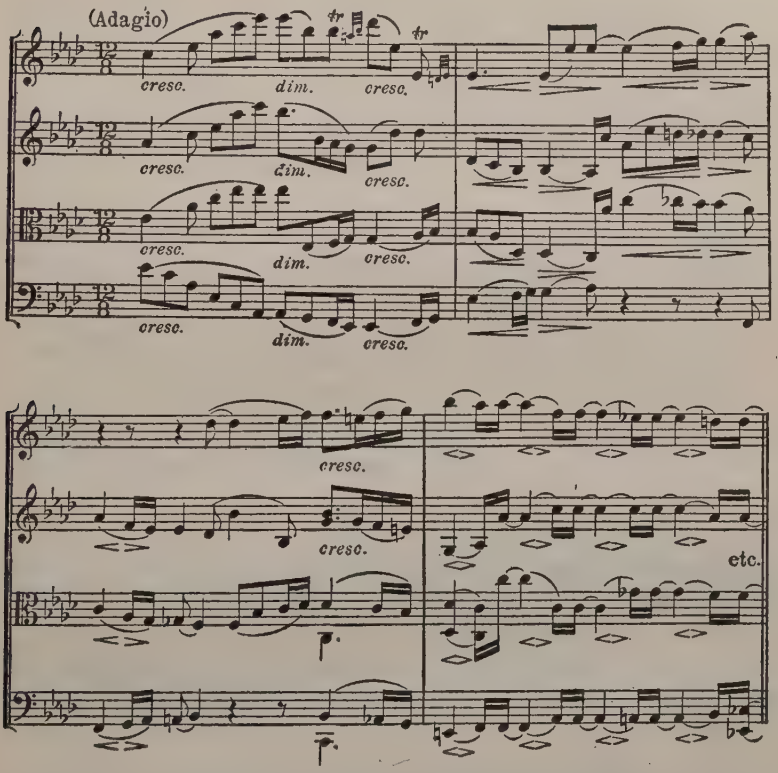
Comparison of a solo or an orchestral score with a quartet score shows how vastly more important and complex dynamics are in this last. This is not unreasonable since the orchestra is too large a tone-mass to be easily wielded and the solo instrument can depend more upon the momentary inspiration of the single genius; while the quartet, the highly refined combination of four stringed instruments, permits of greater subtlety than the one, greater variety than the other, which must, however, be worked out uniformly throughout its texture.

This comparison holds true through Beethoven's own works (except that the later piano sonatas resemble the last quartets, fruits of the great period in which his thought molded any medium into shapes it had never taken before). A thorough examination of Beethoven's use of dynamics in the quartets is indeed the most instructive study, which would show quartet players the infinite variety and vital importance of carefully rendered effects, and would also show composers the most extraordinary possibilities in the realm of the intensification of expression which have never been developed to the full. We have it that Beethoven was extremely meticulous about his markings, therefore we can trust ourselves to a good edition of the quartets* as less subject to editorial idiosyncracies than in the case of many earlier composers. We are quickly aware of certain characteristic means like the *crescendo* leading, surprisingly, to a *piano:*  . We also have it from experience and tradition that his written *crescendo* or *diminuendo* meant a more important rise or fall than the

* The Breitkoph & Härtel edition is probably the best; in the Peters, the interpretations, which are Moser's rather than Joachim's, to judge from the latter's reluctance to set down definite fingerings and bowings, should be allowed for.

marks . Any excerpt from the last quartets will illustrate his idea of dynamic meaning (Adagio, op. 127; see also Fig. 18):

(FIG. 27)



They are stirring problems, these last quartets, even for the experienced player who has given them long and reverent study. Measures like these have to be gone over in segments, and a whole movement in turn measure by measure, before the full value and accurate performance of these passages becomes clear and understood, before the whole can be reconstructed and construed from its larger meaning. Here dynamics are indeed part and parcel of the musical thought. Scarcely subject, perhaps, for the inexperience of students. But the author believes that great works of art are the best models to work from. So much can be learned to apply to

simpler problems. This is not mere turning to the past with conservative hindsight. It is appreciation that learning from the greatest things that have yet been is the best preparation for a greater future.

A definition is called for. What do we mean by the question of Dynamics? and how can it be separated from that of Color? We here try to consider dynamics as the points of expression *affecting the motive current* of music, *the intensification in volume or speed of its progress.* Color, on the other hand, we differentiate as, figuratively speaking, the relatively more static element of *quality*, of *tonal variety* and the refinements of four-voice texture. The two are almost inseparable, and they are constantly interactive, often one and the same. Color, used in the general sense of the variety and interest of a work, includes dynamics. But for purposes of analysis and in order to achieve more thinking about quartet style it is necessary to distinguish the essence of each wherever possible.

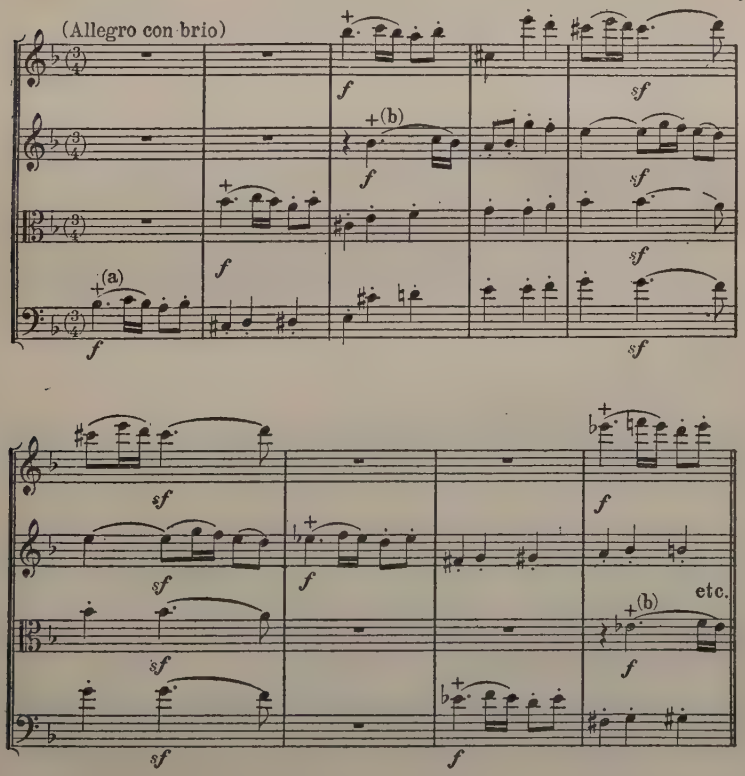
Gradations.

Obviously the first problem of dynamics is a proper distinction between *pianos* and *fortes* and all the midway varieties of expression. The strength of any one of these will always depend on what precedes and on what follows it. We have seen that these marks are purely relative. First and last, the piece as a whole has to be considered, the subjects and the climaxes, but there is a process of intermediate detail concerning each of these in its component parts and its relation to the surrounding material. Here it becomes evident that the *piano* is a louder or softer one, the *mezzo-forte* nearer the degree of *piano* or of *forte*, the *forte* large and heroic or merely stronger than what went before. Here also the extent of the *crescendo* is to be determined, whether it is the only *crescendo* within a certain range and therefore most important, or whether it is one of several, and if so, whether these several progress cumulatively or are independent of one another. There is an endless variety of varieties. There is no rule for them save only the rule of all dynamics: *consider them well in order to intensify the expression and increase the interest of the music.*

I. If a given dynamic degree is prolonged over a considerable space it runs two risks: first, of *flagging* in itself, second, of growing *monotonous* to the listener. The first difficulty may be overcome by understanding how to *sustain* the dynamic degree, the second by discovering in what manner *variety* may be worked into it without being apparent.

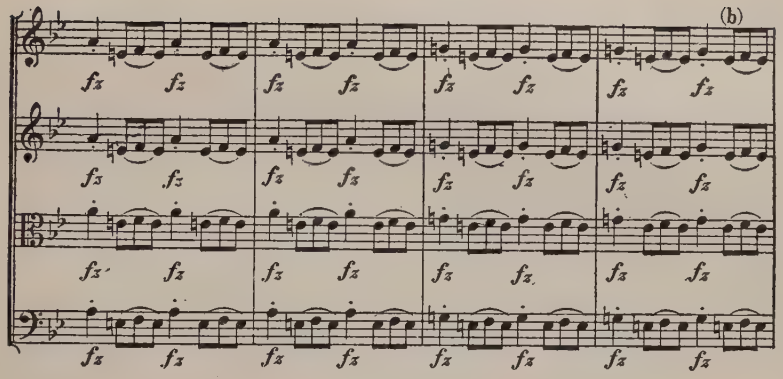
Ex. 1: A passage like the following (Beethoven, op. 18, no. 1), if it suffers in the first respect, suffers also from indecision. But it is easy to sustain the forte and with interest, since there is constant opportunity of fresh insets. Each entrance should be made with an equally vigorous forte and equally new spirit, the dotted quarters giving way a little to the thematic figure (a), the *sf* very pronounced, the opposing rhythms of the figure clearly brought out (b):

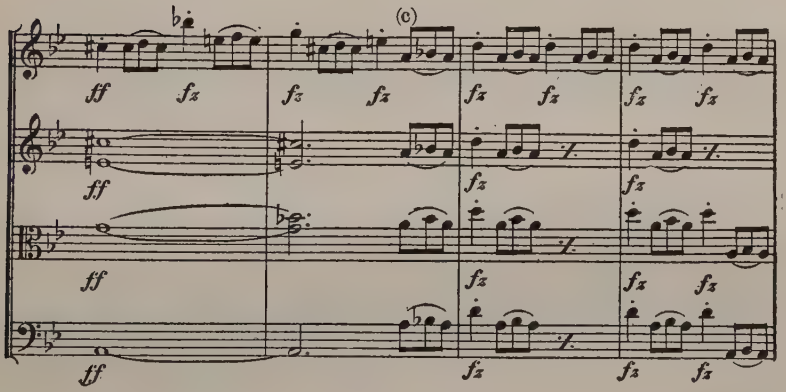
(FIG. 28)

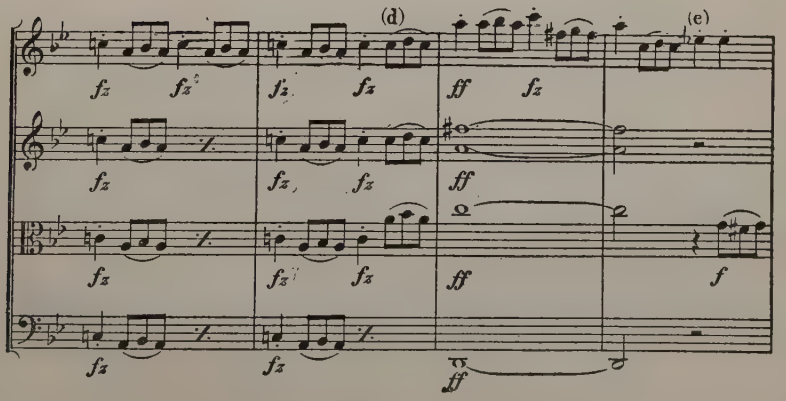


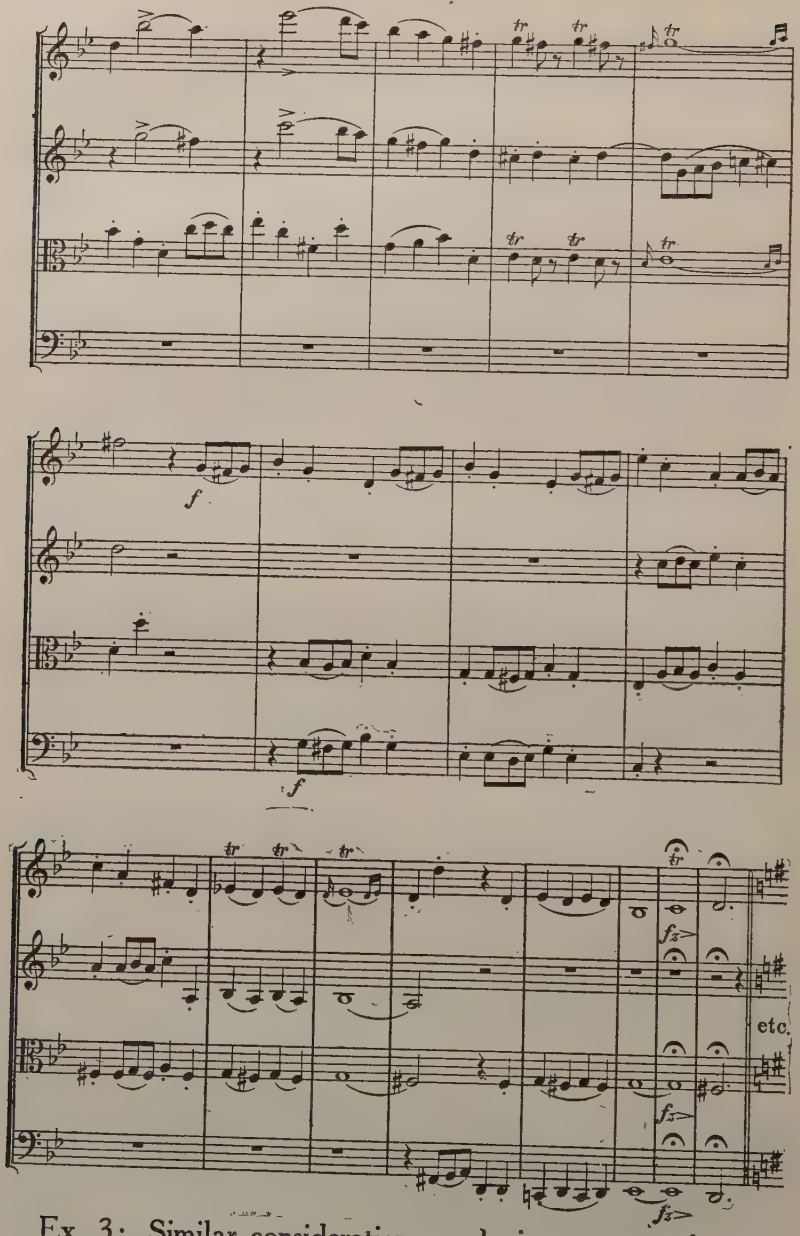
Ex. 2: Instead of pounding through the following forte passage (Haydn, op. 76, no. 1) which gives no opportunity to distinguish between *f* and *ff* and makes the whole sound monotonous and indistinct, the introduction of a little variety quickly clarifies the situation. A vigorous but not stridently loud *f* to begin with; then, ever so little *less* in each instrument for the unison (a)—which is loud in itself and would sound louder than the preceding if all four still played as strong a degree of *f*—with well-marked *fz;* the last triplet of the unison (b) made to belong rather to the *ff* and so slightly separated from the preceding and a little broader already to mark the entrance of the *ff*, in which the first violin plays out as loud as possible against the sustained chord of the lower voices; the first triplet of the next unison (c) again separated as belonging to the following note, and, since there is to be another *ff* further on, this unison may be again taken only *forte;* the triplet (d) broadened as before, belonging to the *ff;* this now lasts until the first violin's E-flat (e), the second E flat and D giving way to let the viola enter with the original degree of forte, which then sweeps along vigorously for the viola, singingly and not too loud for the violins (being two against one who has the principal theme) resumed once more by the first and carried to the change of key with perhaps greater breadth (but no retard) approaching the final holds:

(FIG. 29)


(b)


(c)

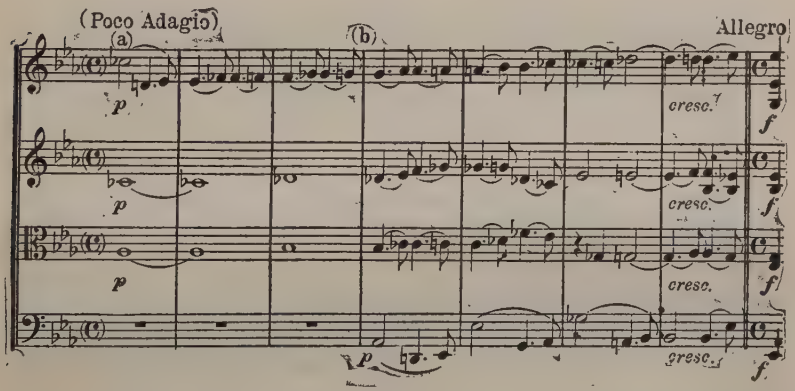

(d)
(e)



Ex. 3: Similar considerations apply in passages of a sustained piano or pianissimo. The subdued introduction to the first movement of Beethoven's op. 74, with its opening *sotto*

voce, its sudden forte breaking into the quiet, requires something more effective during its last seven measures leading to the Allegro than a flat piano. Since there is a prolonged chromatic ascent of which only the very last measure is marked crescendo into the forte, it might be well for the first violin, after its thematic measure (a), to drop rather to *pp* (the accompanying voices being already very soft) and then, to avoid sudden increase of tone where all four voices play (b) and the cello has the important figure, for the whole to be again *pp*, the cello easily sounding above the others without playing any louder, the final crescendo thus acquiring a more dramatic entrance into the new matter of the Allegro:

(FIG. 30)



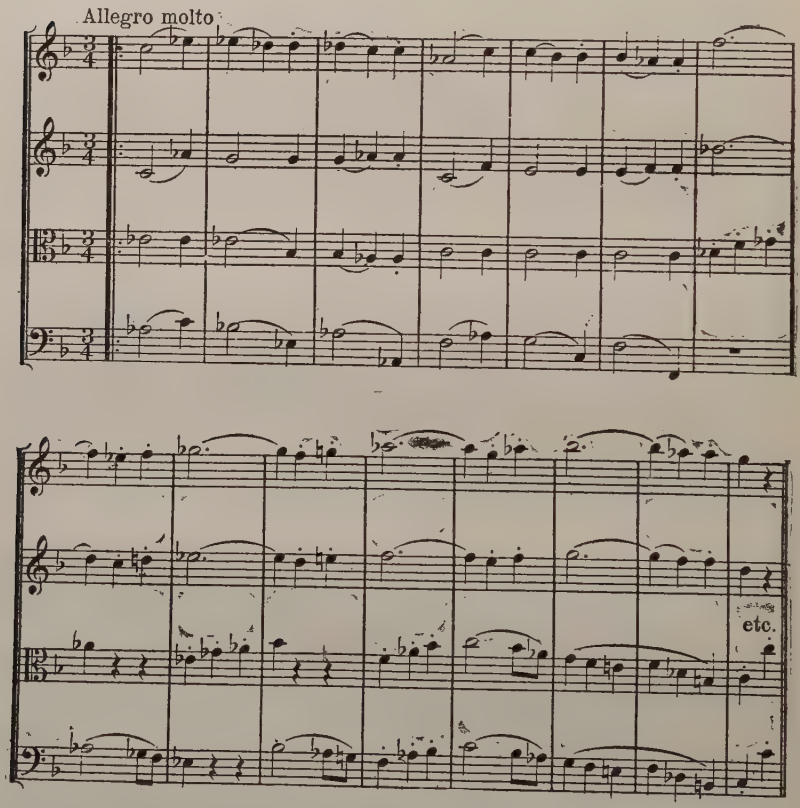
(If such a treatment of the score seems at first like tampering with the exact markings of Beethoven, about which he was so meticulous, let the passage be conceived simply in a *less degree of piano* than the foregoing, thought of, for the sake of distinction, as pianissimo.)

II. In adjusting dynamic effects it is necessary to consider the *natural dynamic tendencies* of a phrase — just as in the phrasing it is necessary to consider the natural emphasis of the phrase-tones—and to act in accord with them or counteract them, as the case may be.

Ex. 1: An *ascending* phrase is apt to have a natural tendency to *increase* in tone with its building-up. Yielding

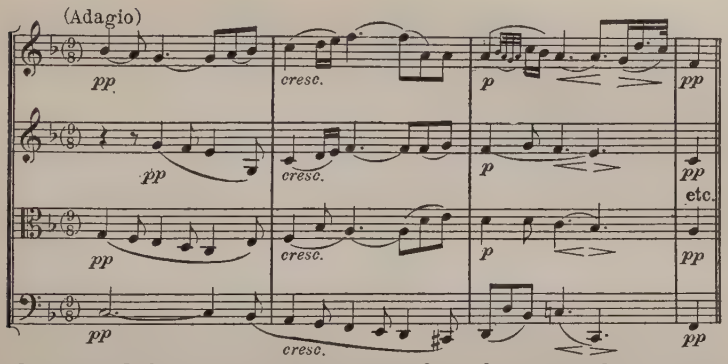
to this tendency, unless especially so indicated by the composer, is liable to be productive of bad musical effect, of false dynamic expression. So it would be in a phrase like the following (Beethoven, op. 18, no. 1) from a quick scherzo movement, all in piano:

(FIG. 31)



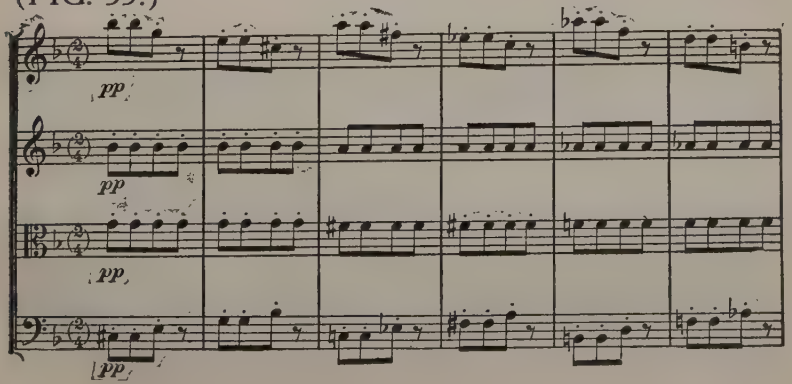
Ex. 2: Again, it is well to observe carefully the *exact part* of the phrase in which an indicated crescendo or diminuendo should take place, to avoid involuntary alterations in volume of tone and perhaps spoiling the intended effect. A sensitive measure from the Adagio of the same quartet is often unintentionally misread in this respect by giving in to a slight tendency of the phrase to grow already on the last beat of the measure,

whereas it is especially indicated that the crescendo should not begin until the following measure:
(FIG 32.)



If the two different treatments are played over and compared, the original will readily be felt to be the finer.

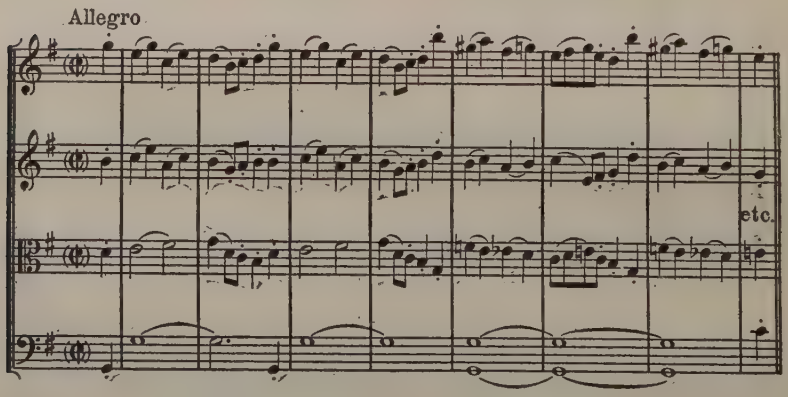
Ex. 3: There are, however, instances where greater dynamic interest is to be obtained by *following the natural inclination* of the phrase, if by so doing the delicacy of the music is not offended in intensifying the desired effect. The following measures from the finale of the quartet just cited, descending in semi-tones, have a tendency to diminish, and by slightly carrying out this natural indication, perhaps during the repeated measures (a) so that the two measures preceding the crescendo are the lowest dynamically (the bow dropping dryly on the string, without expression), the crescendo in its turn is made more interesting, bigger before dropping back to piano:
(FIG. 33.)



III. It is sometimes necessary to *make dynamic variations* where these are not indicated. Here the natural tendencies of the phrase will be a useful guide in picking appropriate effects.

Ex. 1: A common device—one imbibed with the student's earliest learning, in fact—is that of playing a repeated phrase more softly the second time than the first, though there may be no mark to that effect (Haydn, op. 76, No. 1):

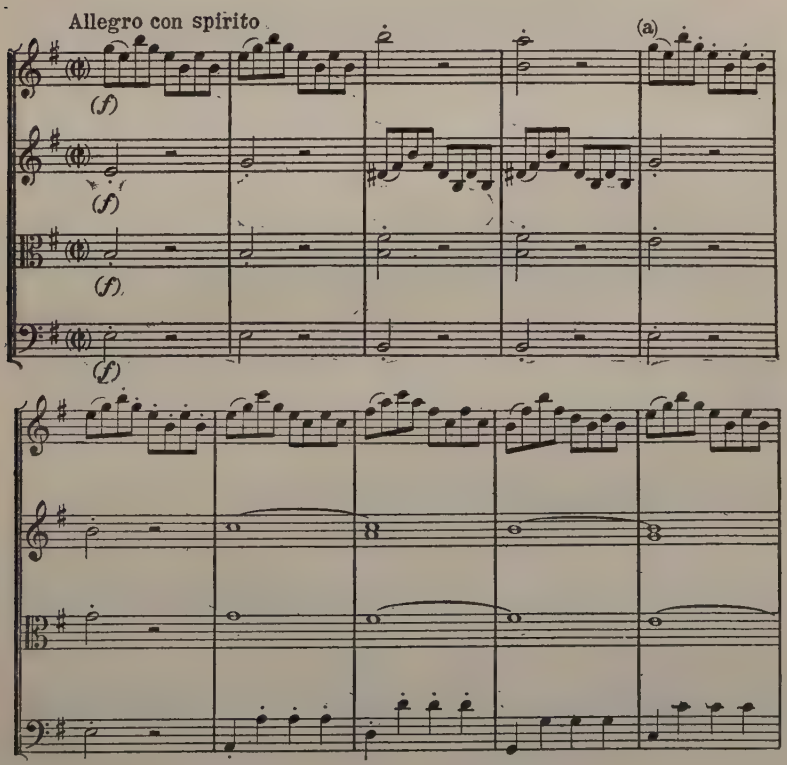
(FIG. 34)

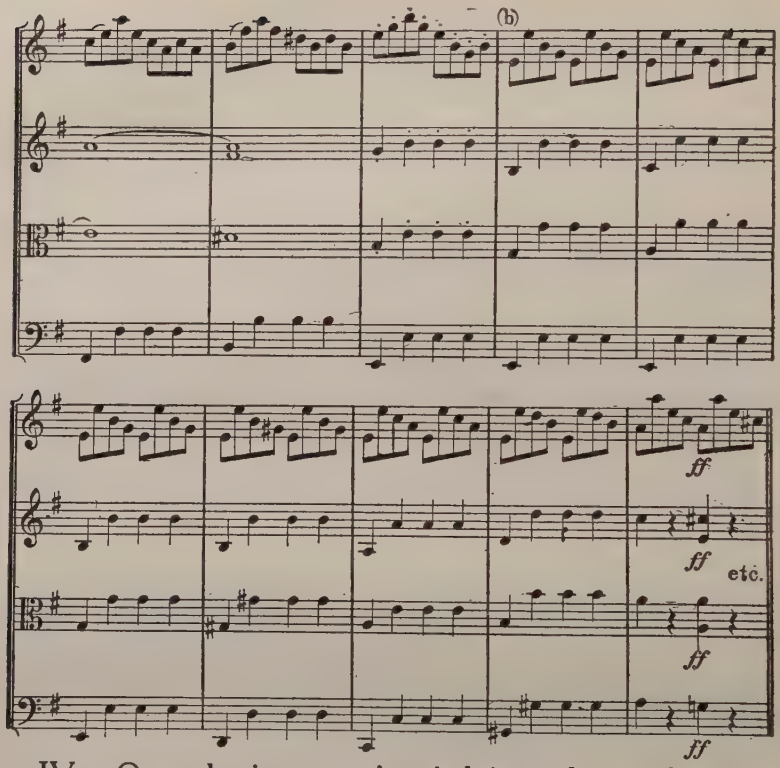


Sometimes the effect may be reversed and, instead of echoing, the repeated measures may begin to build up towards a louder dynamic degree; the object in either case being appropriate dynamic variation.

Ex. 2: In Haydn or Mozart one frequently finds passages like the following (Haydn, op. 76, no. 1) which sound very monotonous if played as indicated. By playing them over several times thoughtfully, dynamic expressions suggest themselves. Certainly nothing extreme would be suitable, since the composer would have indicated such an effect had it been his intention. Something of this sort, perhaps: beginning forte, one might, taking (a) as point of departure, after two or three measures very gradually indeed *diminish* to reach at (b) a piano (not too soft), thence growing again through the faster gradation up to the big *ff:*

(FIG. 35)





IV. Once the interpreter's mind is made up about the relative values of his fortes and pianos, he may find that the execution requires some *exaggeration.* Distinctions do not always carry to a distance—not even the short distance of an individual just outside the group of four—but no matter how fine they may be, there *must be no doubt about them in the listener's ear.* The reasons for this need of exaggeration will be more fully discussed in the following section.

The Pause.

The pause is the great means of *clarifying and defining* to the listener. We have seen how valuable the imperceptible wait is in conveying phrases. The need now becomes apparent for a similar treatment in conveying sudden changes from one dynamic degree to another—*f* to *p*, *p* to *pp*, and their opposites—for in dynamics, as in phrasing, one sound-quality must *finish* before it progresses to another.

The dynamic power of the pause is not a self-contradictory term. If the ear does not understand the process of musical motion, everything is muddled to it. Dynamic phrases—the pulse-lengths into which that motion is confined—should not succeed one another faster than the senses can apprehend them. It takes actually time for sound-waves to travel to the listener's ear, and, immeasurably microscopic as that time may be even in a concert hall, infinitesimal as it may be in a room, it is nevertheless true that a sound-impression (as of a forte measure) remains dominant in the brain of the listener for a longer instant than the player supposes and that its resonance covers the beginning and prevents the registration of any subsequently sent other impression (particularly of a softer and less intense vibration, as of a piano following a forte). This is equally true of a softer impression (as of a piano measure) the resonance of which lingers a fraction of an instant beyond the beat which the player feels, and which is rudely broken into if the subsequent impression (as of a forte, or even of another piano) is too soon dispatched after it.

The human ear, moreover, is a very delicate mechanism which apprehends sound with many variations and subtleties and individual interpretations which are not written in the score from which the player broadcasts. When he has a particular effect in mind, therefore, he must manage to make it so that there can be no doubt of his intention. To this end it will be necessary to exaggerate to his own ear, to make, for the sake of distance, more of a pause between the end of a forte and the entrance of a piano than his own ear would at first think necessary. Very soon his own ear will demand this pause, recognizing the greater clarity it achieves. He will appreciate its value most rapidly by listening to another group than his own, when he will be the first to desire clear enunciation, or by always keeping vivid in his mind the point of view of the listener.

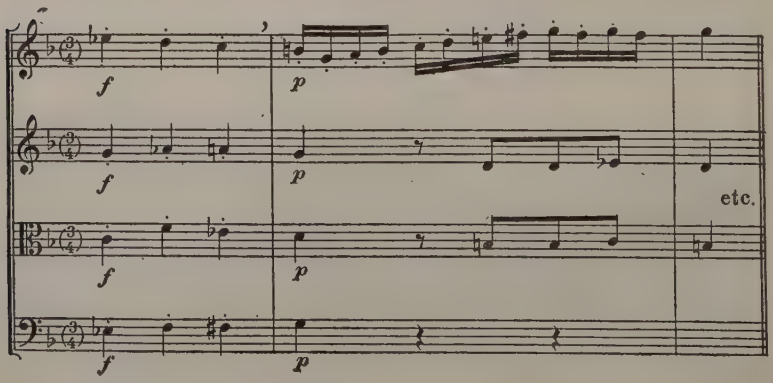
I. Without a pause most dynamic contrasts simply remain *unfulfilled*. The extent of the pause can only be determined by the case.

Ex. 1: A triple *ppp* following a *ff* is not effective at all unless there is sufficient wait after the *ff* to let the entrance of the *ppp* be heard. The return of the *ff* after the *ppp* requires less of a pause because of passing from a softer degree to a louder, but neither is it convincing without a tiny break (César Franck Quartet, Scherzo):

(FIG. 36)

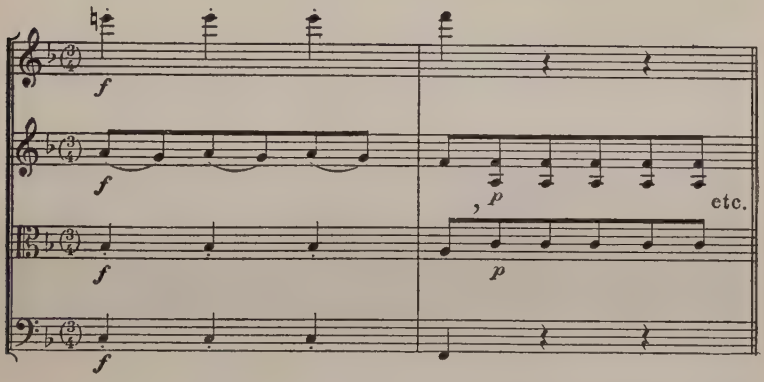
Ex. 2: In a less extreme case, changing abruptly from *forte* to *piano*, still a pause is essential to make the inset of the *piano* clear (Beethoven, op. 18, no. 1):

(FIG. 37)



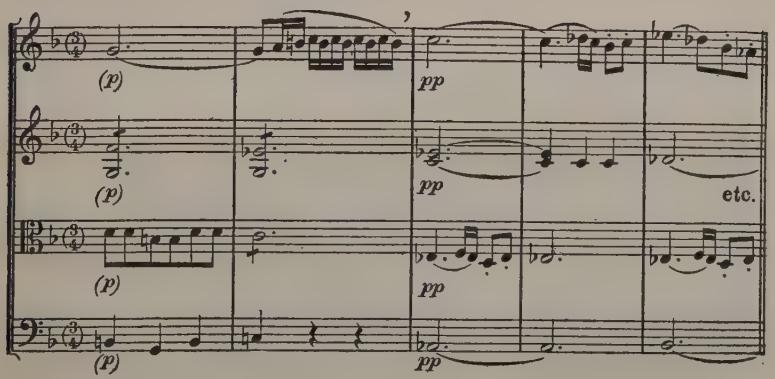
Sometimes it is the accompaniment that makes the break before resuming its discourse in a softer degree (from the same quartet):

(FIG. 38)



Ex. 3: Even the less drastic changes, as from *p* to *pp* require a distinct pause to make the new matter completely effective (from the same quartet):

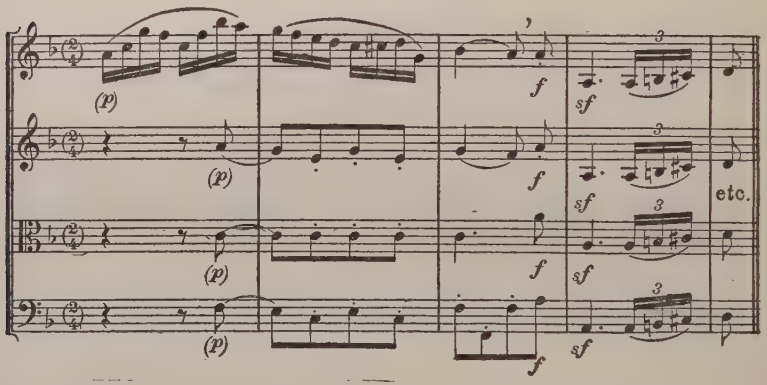
(FIG. 39)



Ex. 4: Where a *forte* succeeds a *piano* without any preparatory crescendo, a tiny pause is also necessary, a pause which

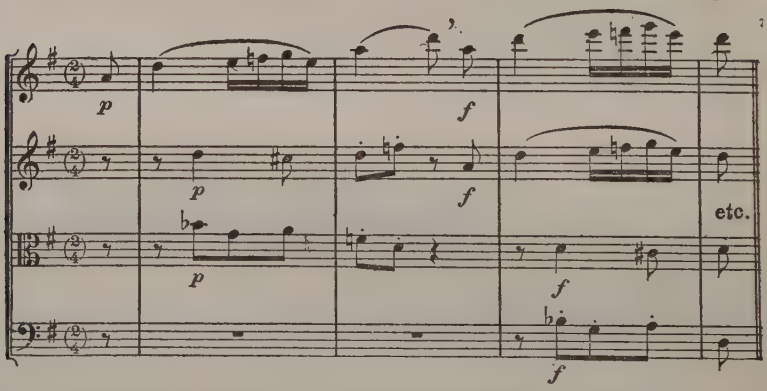
is no more, perhaps, than the imperceptible wait necessary to the phrasing (from the same quartet):

(FIG. 40)



And again (op. 18, no. 2):

(FIG. 41)



II. Where there is *no change* in dynamic degree, a pause may still be needed to *separate the resonance* of one phrase-group from that of the next.

Ex. 1: Such is the case in the following measures (Beethoven, op. 18, no. 1) where even after the hold, a slight break is necessary to make clear to the listener the inset

of the second *ff*. A longer pause, of course, is needed before the *pp*, because it introduces something new. Note also that Beethoven must mean the E and C to be held *long*, as he does not mark the hold until the second measure, one measure elapsing first in tempo:

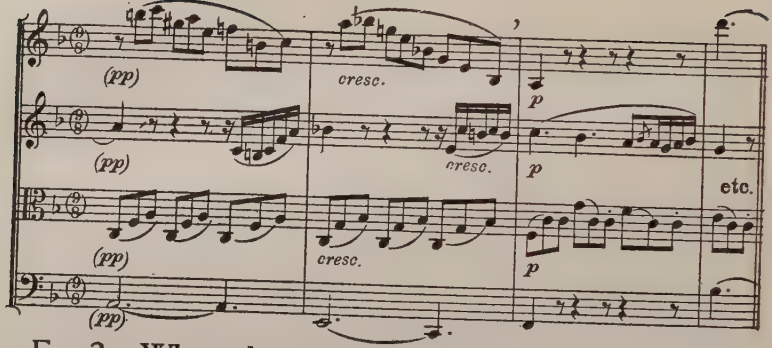
(FIG. 42)

III. Only the pause, furthermore, makes possible certain of the *finer effects* of dynamic variety.

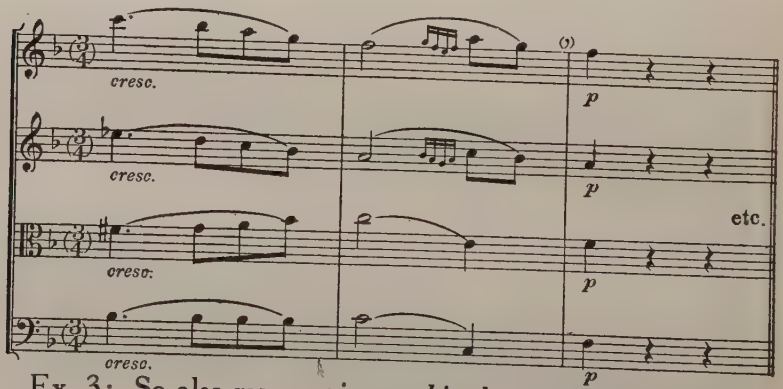
Ex. 1: Chief of these, perhaps, is the device so characteristic of Beethoven—the *crescendo* leading, surprisingly to a *piano*. This it is in no way possible to interpret save by a pause before the entrance of the piano (Beethoven, op. 18, no. 1):

(FIG. 43)

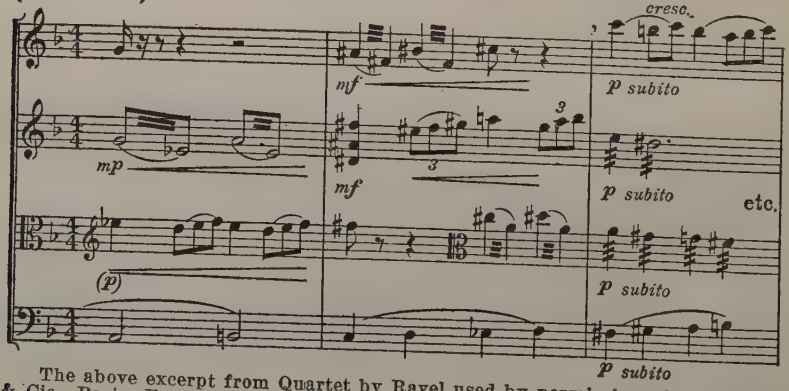
FIG. 44



Ex. 2: Where the piano is a *finish*, not introducing anything new, as it does in the preceding examples, the pause would be very much less, scarcely more, in fact, than the imperceptible wait, since any actual pause would break the continuity of the phrase too much (from the same quartet): (FIG. 45)



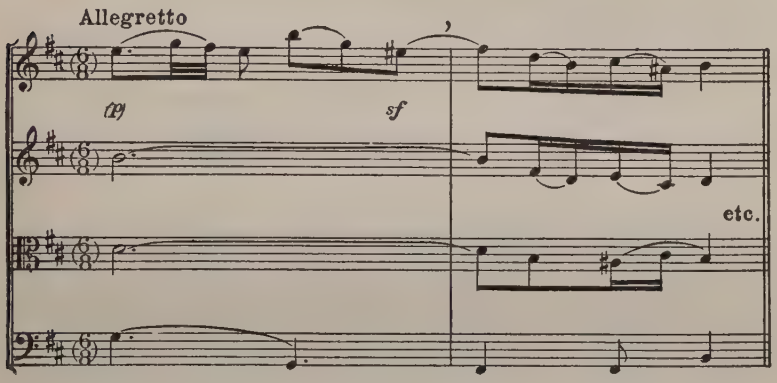
Ex. 3: So also may a *piano subito* be conveyed (Ravel): (FIG. 46)



The above excerpt from Quartet by Ravel used by permission of A. Durand & Cie., Paris, France.

Ex. 4: And again, in such effects as the *fz* followed by a piano, a slight delay after the *fz* before the F♯ .(Haydn, op. 76, no. 5):

(FIG. 47)

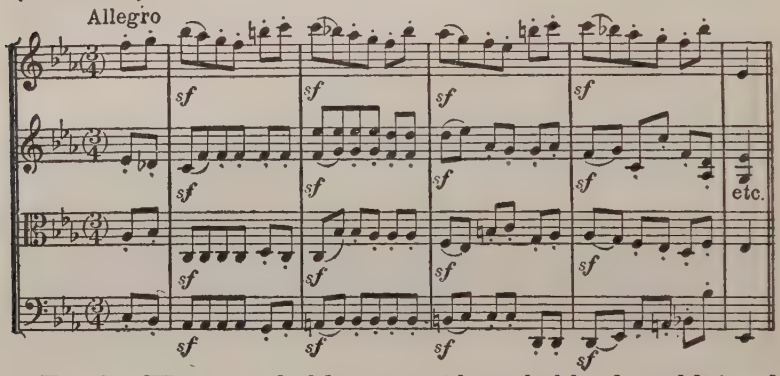


THE ACCENT.

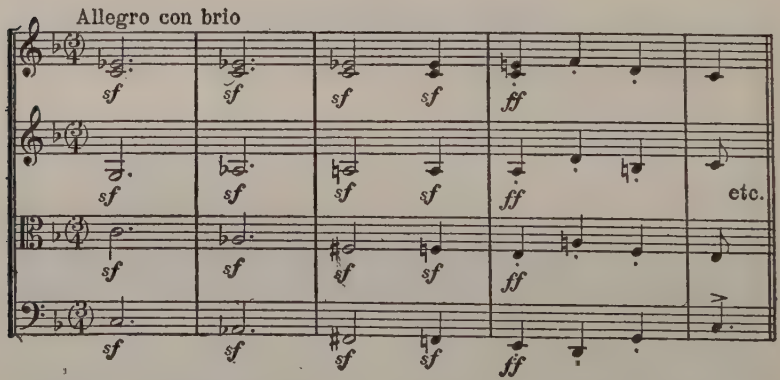
The accent has many kinds of dynamic value. It runs through varying degrees from that indicated by > or *sf* or *fz* to the unwritten accent of the rhythmic pulse and the rhythmic emphasis akin to the natural emphasis discussed in the chapter on Phrasing. Here, again, the style of the music must first decide what degree of accentuation is necessary in proportion to what goes before and after. Then the acoustical problem of producing the accent so that it will carry through space distinctly will determine the necessary treatment.

I. It is the general experience of quartet-players to find that the *sforzato* or *forzando* needs to be *marked by a firmer and more brilliant attack* than the individual is at first inclined to bestow upon it, especially in passages already forte in degree. To him the accent may sound decided enough, but a few paces away it is weak.

Ex. 1: Each attack should be vigorous and insistent, and equally so in all four voices (Beethoven, op. 127):
(FIG. 48)

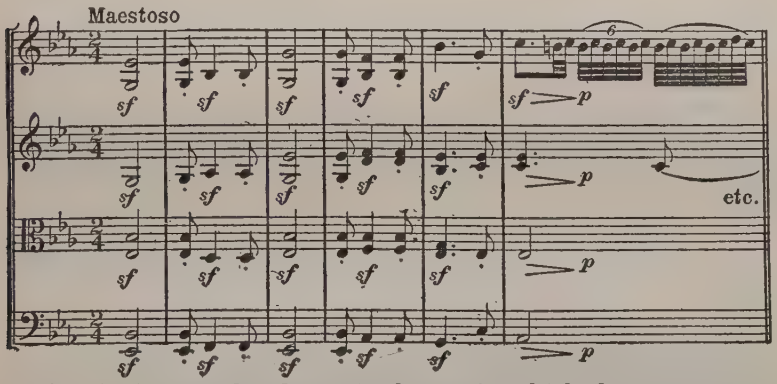


Ex. 2: The same holds true, with probably the additional assistance of distinct separation for clarity's sake, of the notes which are such long ones (Beethoven, op. 18, no. 1):
(FIG. 49)

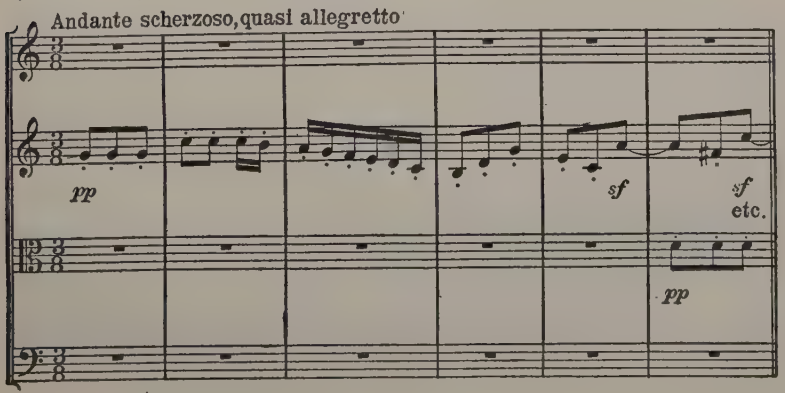


Ex. 3: Beethoven's op. 127 in E-flat again presents an opening most difficult to produce with the needed power, conviction and clarity. The first note of the second measure, which would bear the rhythmic accent, is both an eighth and dotted and should be distinctly crisp in order that the following quarter which falls on an unaccented fraction of the beat may have its full emphasis, contrary to the natural tendency. An imperceptible pause will be needed before the quarter; the last eighth is crisp again. The material of the first two

measures is then repeated and extended, the long accented notes in the third, fifth, and, for the first violin, sixth measures to be approached with the same pause to give them the importance which obviously is theirs in the phrase. There is the double difficulty of keeping the tone heroic, large, full (the *Maestoso really* majestic) and yet playing the dotted eighths really short, very vibrant but not accented. This is to be achieved by drawing only so much bow on the long notes that the short ones have not too much return stroke to absorb:
(FIG. 50)



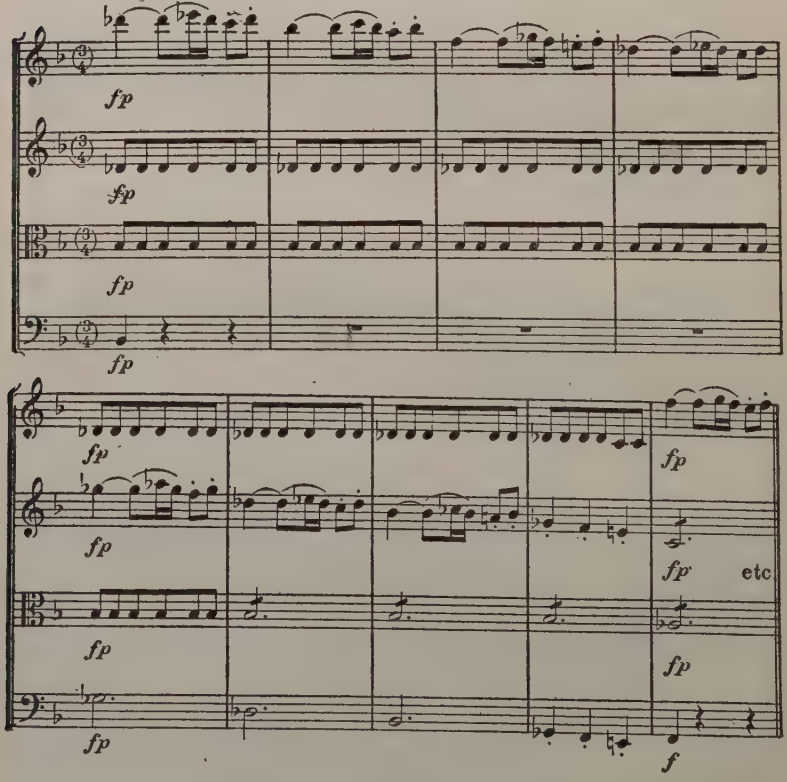
Ex. 4: When the dynamic degree in which the *sf* occurs is *soft*, the accent is necessarily modified to a proper proportion (sometimes, even, it requires no more than a quicker vibrato). In the theme of the Scherzo of Beethoven's op. 18, no 4, the *sf* should not be harsh or abrupt but should stand out piquantly from the surrounding *pp*.
(FIG. 51)



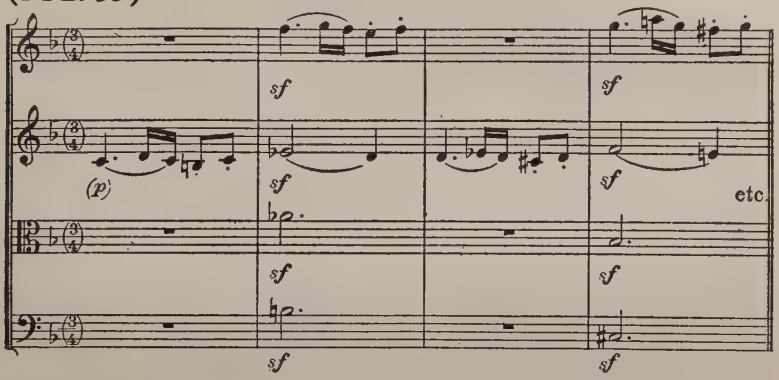
Had Beethoven written in later times he would probably have used the mark > in such a place (cf. Allegretto of op. 59, no. 1), rather than the more violent *sf*, but this mark never occurs in op. 18 and very rarely even in the later quartets.

II. The *fortepiano* is to be distinguished from the *sf* and *fz*. It should be produced not so much by sharp inset as by a *greater volume of tone dropping instantaneously to a less.* It should be thought of as a larger, softer effect, but it should also be so distinctly made as to leave no doubt in the listener's ear.

Ex. 1: The difference is well illustrated in the first movement of Beethoven's quartet in F, op. 18, no. 1. After the fugal passage quoted (Fig. 28) a drop to *piano* is made through holding the *forte* quality for an instant and letting it fall at once again to *piano*, prolonging the note ever so little to clarify the acoustical effect of the sudden dynamic change: (FIG. 52)



Each entrance as the passage proceeds is made with this full tone dropping at once to piano, in contradistinction to the earlier appearance of the figure in piano with sharp *sf* inset: (FIG. 53)



Other *fp* marks in the same movement are to be similarly distinguished from the *sf:*

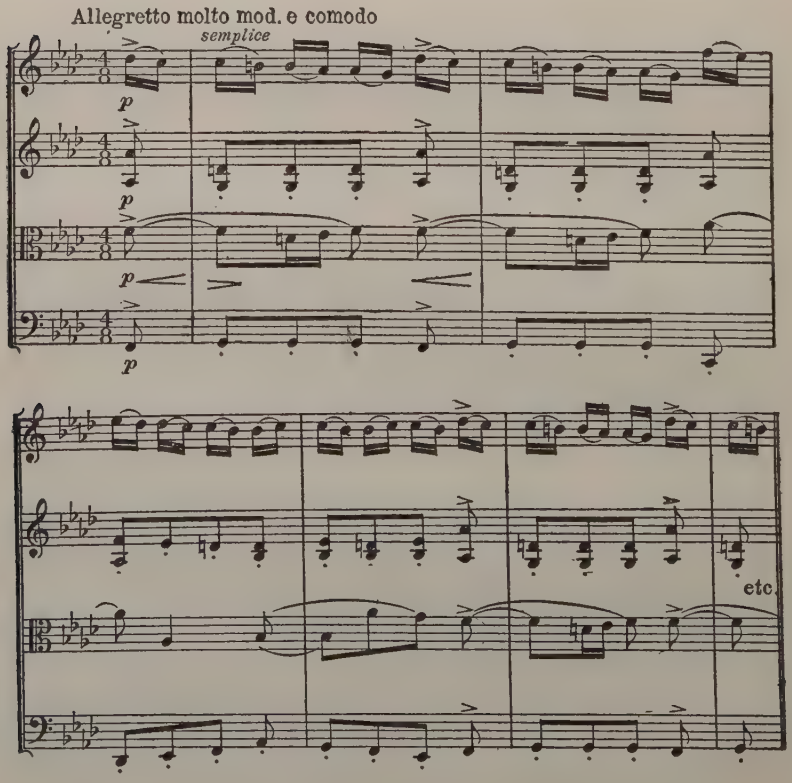
(FIG. 54)

III. There is another type of accent which is rather *tenuto* than *attacked.*

Ex. 1: Considering the romantic spirit of Brahms's Allegretto movements, and in addition the note *semplice* (the phrase to be simply rendered) the theme of the third movement of the C minor quartet is yet often painfully misconceived even by experienced quartet-players because they fail to take into consideration its peculiar sensitiveness to the false accentuation consequent upon any unevenness of tone-production.

The second sixteenth note in each group of two, unless carefully evened, naturally tends to be weaker than the first, which in turn causes the first to sound as though it bore an intentional accent in addition to that of its rhythmic position. Add to this the steady drumming of the dotted eighths in second violin and cello, and you find this tendency to sound accented on every beat of the measure. But Brahms evidently intended only the fourth beat to be accented, giving the quaint lilt that characterizes the phrase. Something must therefore be done to counteract the heaviness of an accent on each beat: the lower voices should moderate their tone as finely as possible, only the viola's figure sounding out, the first violin keep its sixteenths as even and smooth as possible, and all together feel the fourth beat with that slight lift or *tenuto* which will throw it easily, not roughly accented, to the fore:

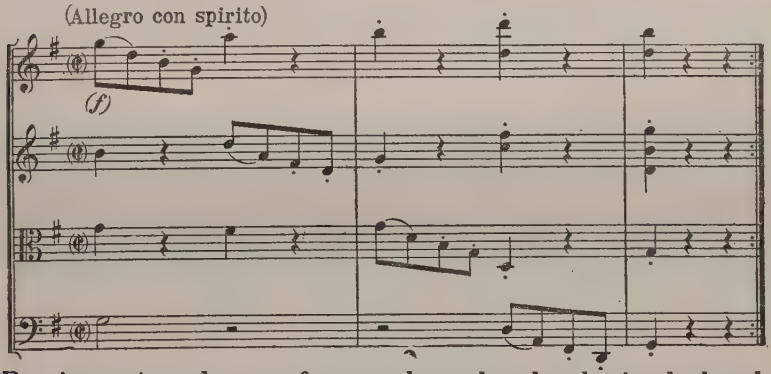
(FIG. 55)



IV. *Control of the rhythmic accent* is of great importance dynamically as well as in phrasing, because of the *tone-volume inherent in accent* which may need to be set free or suppressed.

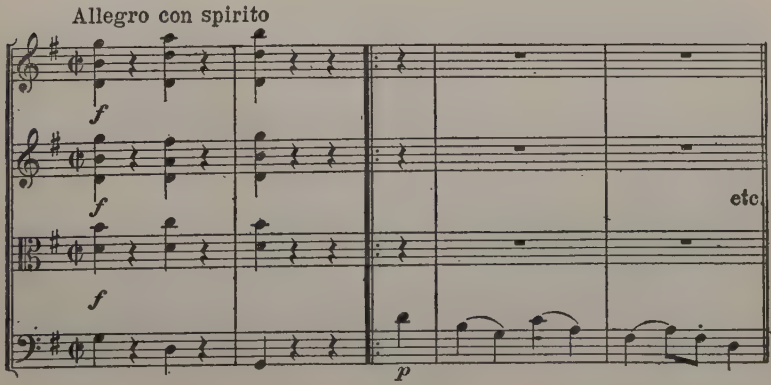
Ex. 1: A chord passage should be watched with particular care in this respect because a harmonic progression may tend to accumulate strength as it advances. In a phrase that is heading *towards its highest point*, this effect can be given free play, as at the close of a section or a movement:

(FIG. 56)



But in an *introductory* figure, where the chords simply break ground for the theme to enter without any preparatory retard, it is better to start right out with full tone, a bold beginning with emphasis on the first chord, to avoid increasing the tone, since the natural swelling of the tone slightly tends to broaden the tempo and so delay the inset of the chords, destroying the sense of leading up to the theme which is the purpose of the introduction (Haydn, op. 76, no. 1):

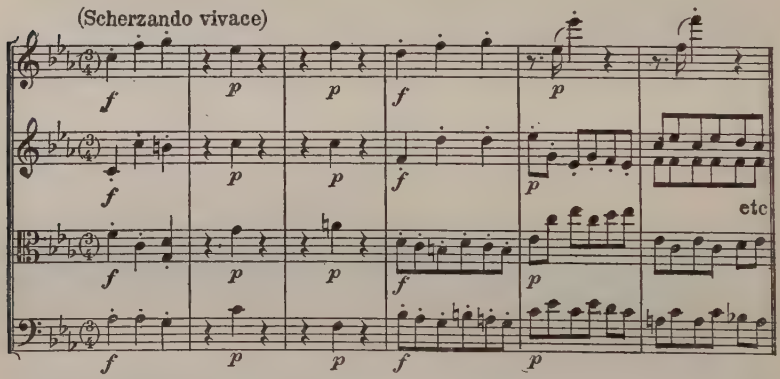
(FIG. 57)



Here timidity of striking a chord into the blue without notice has to be overcome; also the natural tendency of the third, B, in the high register of the first violin, to ring out disproportionately loud.

Ex. 2: An *extra* rhythmic accent is needed in the *Ritmo di tre battute* passage of the Scherzo of Beethoven's op. 127, where the violin's highest note, G, as well as the chord progression, tend to emphasize the *last* of the three quarter-notes, whereas it is the *first* that should have the weight:

(FIG. 58)

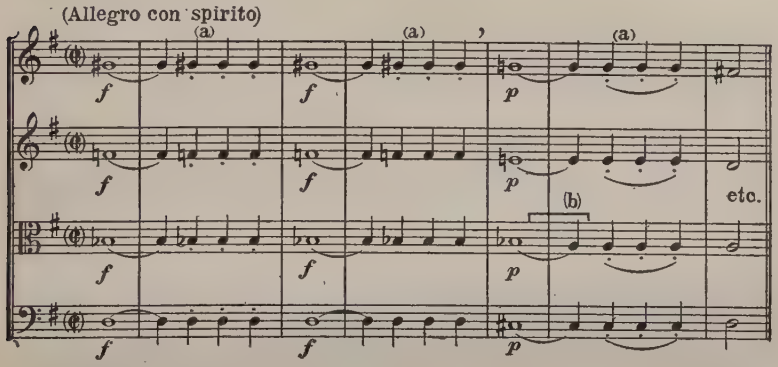


V. Like the imperceptible wait which proved so useful in phrasing, there is an accent that might be called the *imperceptible accent.* It is that slight accentuation which makes clear the entrance of a note and it may be used to follow such a wait.

Ex. 1: We have already seen how, as a phrase, the following measures have no significance whatever unless the repeated chord keeps persistently alive and fresh, and this is impossible in the face of the monotony bred of the very repetition, unless the long tied note is *finished*, and, after the imperceptible wait, the renewed tone (a) is set in with an *imperceptible accent.* This handling provides an easy escape from the tendency to *push* the tied quarter, which is in the dangerous position we have encountered before of an unimportant tone falling on an accented beat. A second imperceptible accent is desirable in the viola's modulating voice (b), the important

change-tone of the harmony, and the pause to point the change from *f* to *p*, of harmony and color (Haydn, op. 76, no. 1):

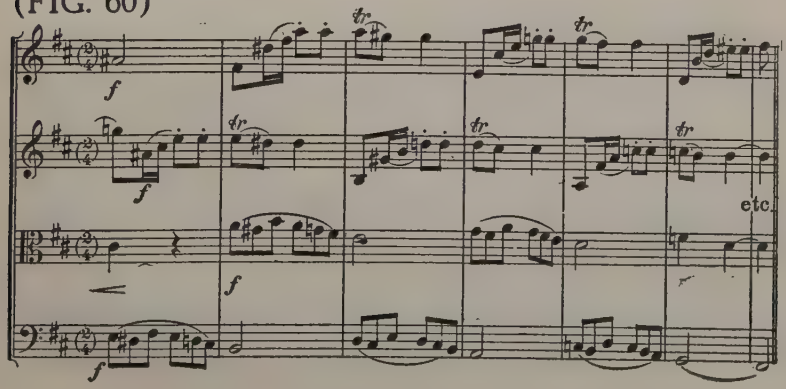
(FIG. 59)



VI. The type of accent which is really no more than *marked rhythmic accuracy* may be of great service in clarifying a complex passage where correct phrasing alone does not succeed.

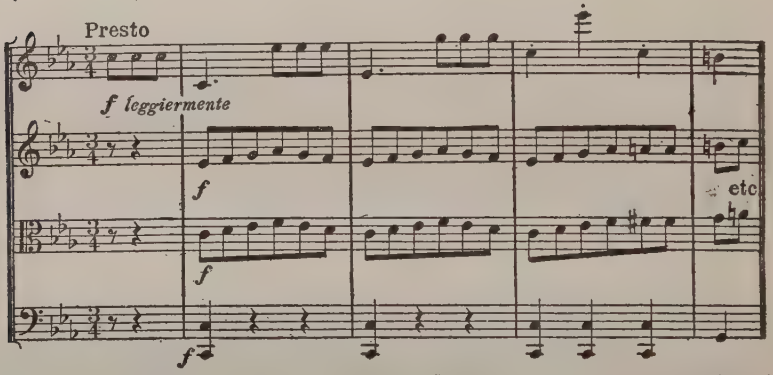
Ex. 1: In the following development passage in the last movement of Mozart's quartet in D (K. 499), the triplet figure running against the eighths and sixteenths figure, both rather inarticulately brief fragments of the thematic material fighting for supremacy, results in a very much muddled effect. But the confusion is at once cleared away if each instrument takes care that *every note sounds out equally*, that the 16ths especially be not dropped, and that *each beat of the triplets* be emphasized:

(FIG. 60)



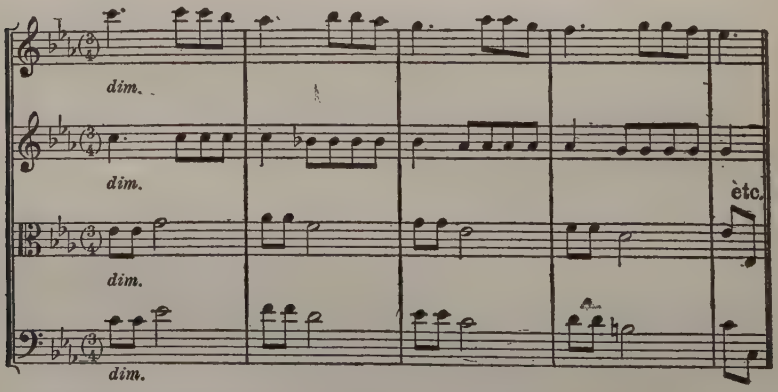
Ex. 2: The marked rhythmic accent preserves the value of short quick notes and thereby preserves the accuracy of phrasing which is otherwise disturbed. How frequently one hears the Scherzo of Beethoven's op. 74 played as though it were written with a triplet instead of three eighths :

(FIG. 61)



The test of these notes is in their fitting with the steady eighths of the second and viola, and becomes especially acute in their later appearance against the octave sequences with the second violin:

(FIG. 62)



They may be evened by thinking of the accent on the dotted quarter, at which they aim, and if they be played lightly, as indeed the "*f leggiermente*" suggests, the problem is solved.

To preserve the same proper effect in the second half of the Scherzo they should be bowed thus, back and forth in lower quarter of bow:

(FIG. 63)

CHAPTER VII.

COLOR AND TEXTURE.

Of all the topics considered in our analysis of quartet-playing, that of the present chapter is the most characteristic. The others may all pertain to any music, even if we have tried to show their especial importance in quartet music. But color and texture are the elements that most essentially give the *style*, that typify this particular crystallization of musical thought. In the four-voice texture of the string quartet, with its polyphonic clarity and the harmonic range of the four homogeneous and yet characteristic instruments, inhere the most interesting and subtle, complex and delicate attributes of that tonal quality and variety which make what we call *color*. It offers to the composer an infinite variety of expression, wider than any solo instrument, more refined than any larger combination, suitable to the finest and purest treatment; and to the interpreter, if he but once begins to think of it with that utmost consideration which any great art demands, a field of thought and work that is boundlessly fascinating, challenging, exacting of his best.

The quartet-player is now faced with the problem: How to read indications of color? How to effect the textural interest and quality the composer had in mind? He has almost no guides, fewer even than in the problem of dynamics. Dynamical marks, pianos and fortes, dots, dashes and slurs, words sometimes: *dolce, marcato, lusinghando, brilliante.* But for the most part nothing. Except the music itself. Ravel, in his lively second movement, says, "quasi arpa—like a harp" to distinguish a variation of his pizzicato theme; but Beethoven, in the beautiful first movement of his op. 74 says nothing at all over the pizzicato arpeggios which are its characteristic figure and which have caused the quartet to be popularly called the "harp quartet."

Color, moreover, like dynamics, is relative. A dotted note may have to sound rather longer or shorter in one type of phrase or movement than in another; a piano or a forte rather fuller or thinner because of what precedes or follows it; a contrast vivid or only mild. Sometimes *thinking* an effect is enough, where it is too subtle for any written indication. Usually, however, the execution requires some exaggeration to convey the thought. There is still always the problem of achieving acoustically the composer's and the player's intentions, and the same considerations of distance and the listener apply here as in our discussion of dynamics.

The quartet-player must cultivate his feeling for texture, his color ear. The student should realize this from the first and constantly listen for color values, listen to himself and to his colleagues, not only for the sake of ensemble but indeed for the very life and interest of his performance. For music is afflicted with a peculiar dulness which deadens even the most beautiful phrases if the presentation is not kept vivid and purposeful. The clear purity of the four-voice form particularly needs to be kept clean, sparkling, fluent, like the pure waters of a stream which come to a soiled stagnation if they do not flow. Color interest has grown in the development of music until the modern ear undoubtedly demands much of it. At first, as we have seen, quartet manuscripts bore almost no marks, the texture was too simple, the musical thought itself too limited to be anything but monotonous. But both com-

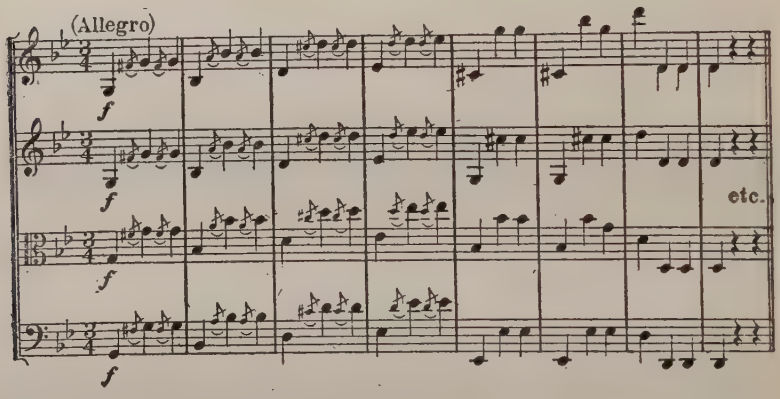
poser's and player's technic grew as music grew more complex. We undoubtedly endow Haydn and Mozart with more textural value than they received from the players of their own time, to judge by the history of technic. We have unconsciously and inevitably applied our own methods; but it is surely no sin to keep alive their musical thought by that artistic variety of color which we find necessary in our more advanced state, provided we adapt it to their style. We consult tradition, avoid the grotesque, bear in mind always the sense and style of the music. These, for lack of more exact indications, must be the quartet-player's guides in determining what use to make of his technical resources.

That he will probably tax them all becomes apparent the moment he analyses his problem. He has not only to determine the relative values of his dynamical effects. He has to consider the *quality of tone* of the different instruments, the fact that a prominent voice moves against a background of *its own texture* and may need some distinction; the effect of a modulation or definite establishment of a key; the quality of sound produced by a unision of two or more voices and of the separate strings played upon; the emphasis of a tone or groups of tones, melodically or harmonically; the quality of the spiccato or the pizzicato required by a particular passage. The bow needs quite special study as a giver of color: its effect near the bridge or near the fingerboard, the length and type of stroke, the importance and variety of its use in accompaniment-figures.

For purposes of practice a little realistic suggestion is valuable. It is a human habit to form pictures in the mind. Our very ideals are of this nature. Pictures may be helpful and they are legitimate so long as they are not permitted to substitute themselves for the original intention of another man's

mind. We are at liberty to think of the vigorous gallop of a knight on horseback if it helps us to an ensemble feeling of Haydn's opening phrase (op. 74 no. 3):

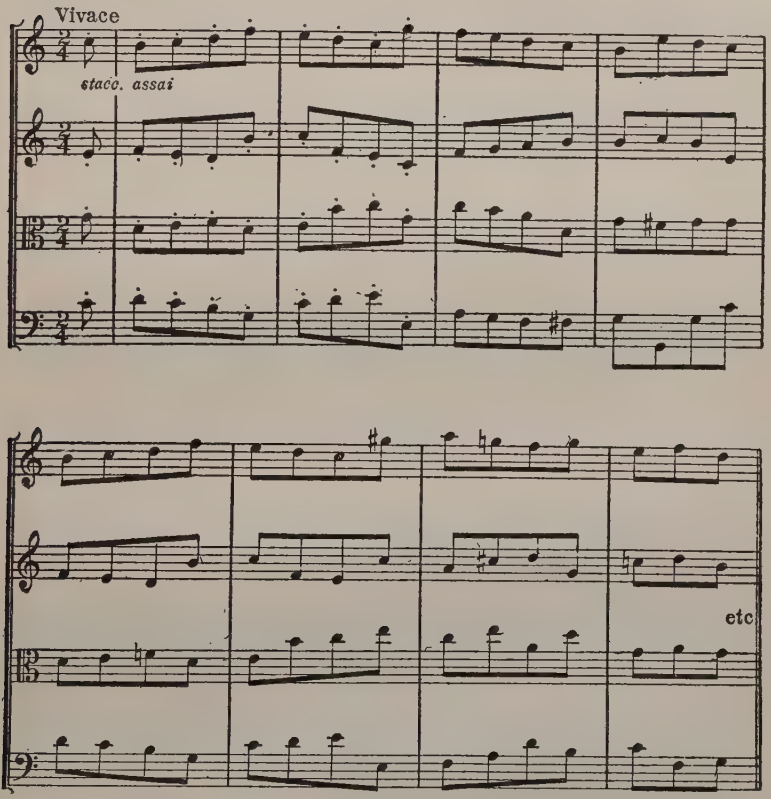
(FIG. 64)



But we must not then assume that Haydn had the same picture in mind when his was a purely musical inspiration: it was not the composer, but the popular inclination to form a picture-in-the-mind that christened this the "Ritter (Cavalier) Quartet." The use of realistic suggestion is to help crystallize your own idea and make it clear to others—to express verbally what you want the music to express. *Think* brilliance if it will give life to a brilliant passage; *think* sweetness, smooth singing of a human voice if it will give life to a *cantabile; think* tragedy and sorrow, *think* humor and merriment, *think* any picture of these human moods and manifestations if it will make the color of the music more vital to your own mind and enable you so to render it. A distinguished quartet-player characterized these measures from the last movement of Haydn's quartet in C (op. 74, No. 1), to give his students a

picture, as "little women busily gossiping together in the market-place":

(FIG. 65)



Sometimes the picture is of a sense rather than of any definite form—an intellectual impression. A sense of noble exaltation (Fig. 27); of the remote ethereal (Fig. 72); of hollowness (because of the harmonic progressions) (Fig. 120); of wistfulness (Fig. 55); and so on, to the pleasure of the individual.

Ravel's "quasi arpa" is a suggestion from the composer for a picture in the player's mind to be conveyed by him to the listener. But such indications are rare and the player has to evolve his own pictures for the most part. Sometimes a composer all unwittingly offers realistic suggestion in the strength

of his own intellectual preoccupation, marked in his style, his idiom. Take César Franck. His score is characterized by almost continuous writing with extraordinarily few rests of either melodic or harmonic nature, by frequent *largamente* and *sostenuto*. In texture and color he reveals the organist's feeling for sustained expression. One feels the grand sincerity of the man, his solemnity and sadness. One regrets that he wrote but a single quartet, but one plays it perhaps the more seriously, compelled by its very nature to reverence the inspired tones that floated from the penumbrage of the organ-loft over the kneeling worshippers of Sainte-Clothilde.

National elements in music also suggest a kind of realism, intangible though they are in essence themselves. Some music is only great because of its national traits, because its themes and colors reproduce the folk-music and the life-spirit of a country. These traits must therefor be preserved, for music may have greatness even if it is not altogether abstractly inspired. Other music is deliberately built upon folk-songs and worked up by a genius (like Kodaly's) into a product worthy in its execution of every musical consideration besides that of its national color which it must be given if it is to remain characteristic. A Hungarian gives the dash, rhythm and color of his native music without thought, because it is in his blood; but an Anglo-Saxon or a Latin may have to make conscious efforts to master these qualities. He may take suggestions from hearing a native interpreter, or he may be helped, through the function of an artistic imagination, by a picture-in-his-mind of the plains of Hungary—vast, lost in a haunting solitude, to guess from the slow movement of Kodaly's first quartet—the peasant dances, the national life-color with which the music is tinged. Then there is the subtler sort of national trait such as one finds here and there in a phrase or a rhythmic or melodic figure of Brahms: the graceful languor of Viennese elegance, the swing and vigor of the waltz, the folk-song quality of so many of his themes. The *color-values* of such elements may be largely understood through a wide knowledge of the composer's works and added to the quartet's own style.

The following pages will attempt to show how quartet material may be analysed in the service of color and texture. In so doing, they may leave an impression that by such analysis the music is sacrificed to theories of execution and forcibly broken into unrelated fragments. But this fractionation is only for the purpose of study. In arranging what might be termed the *color-scheme* of any movement or series of movements, the *music as a whole* must be always borne in mind. In the older types of Haydn and Mozart and even early Beethoven, it would be poor style to employ several different color-values in the first measures of a movement, and better to reserve the contrasts and new effects for the developmental sections: the more distant repetitions and more complex reproductions may need more emphasis than those first heard. In later, colorful, romantic music, on the other hand, it may be necessary to employ many different color qualities in the very first announcements of the thematic material. In short, the color and textural values must be apportioned according, once more as always, to *the style and the sense of the music.*

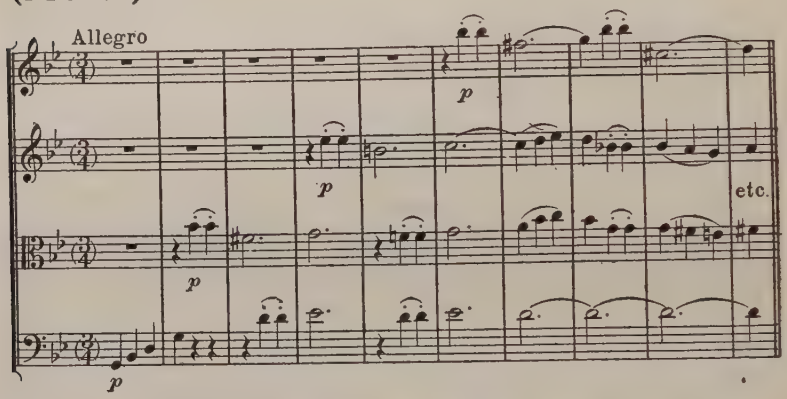
Types of Short and Long Notes.

I. A note with a dot above it is supposed to be short. But the player's problem only begins here. How short? What type of brevity: dry or resonant? Chopped off short or slightly *tenuto?* There are two different kinds of dots used in Haydn and Mozart, one ' ', the other · · : the former is as a rule to be interpreted as *sharp*, the latter may simply mean *separation.*

Ex. 1. The first movement of Haydn's G major quartet (op. 74 no. 3) shows how in a short space the self-same marks may be variously interpreted. First, eight bars of vigorous dotted quarters in forte, grace-notes very clear but not long, played in lower third of bow to give strength to the galloping rhythm, even the final note short if a shade more emphatic because of its final position (see Fig. 64). Then two measures rest, a pause before something new is to happen. Then the cello reëstablishes the chord, but piano, with light

notes not thematically announced but softly introductory to what we expect to hear:

(FIG. 66)

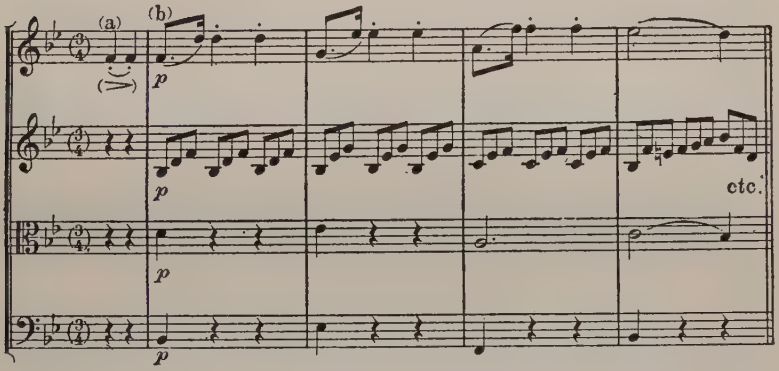


This the viola starts with its two quarter notes, again dotted. But should these two dotted quarters sound just like what went before, either the opening theme or the cello's introductory chord? Observe the slur over the dots which may indicate something more than that the notes are to be taken in the same bow. This is a new theme, a soft one, slightly plaintive, and it should enter *as something new*, both for its own musical value and to convince the listener. Try a slightly sticky bow, slightly *tenuto* in spirit without delaying the tempo, as though the notes had been marked . At once a new color is achieved. There is the needed musical distinction.

This figure is repeated through varying dynamic degrees and should never lose its characteristic quality. Then, in the 54th measure, appear two more dotted quarters marked exactly the same way. Again it is not to be assumed that they are to be *played* in the same way. They are evidently introductory to the theme beginning piano in the next measure. The violin is alone and can do more or less as it pleases with them. They are, thus, a bond between the preceding and the subsequent matter. They also progress from loud to soft

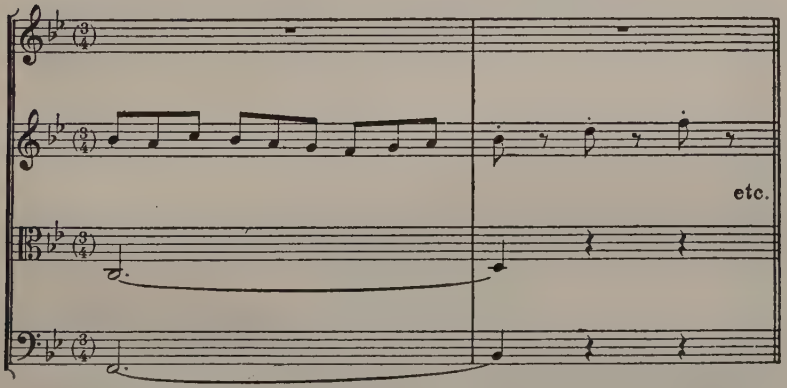
Let them, therefore, be thought of as bearing a diminuendo (a), sounding perfectly free, held back a little affectedly, so that the tempo may be resumed promptly on the new theme. The dotted quarters in this light and joking melody should be really short and merry, while the figure (b) should sound full and singing in contrast:

(FIG. 67)



This theme is repeated with a triplet secondary figure which finally spins itself into:

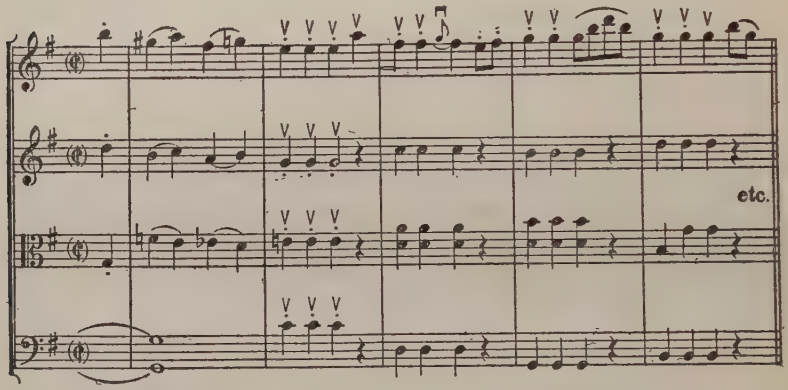
FIG. 68)



The dotted eighths should be very short indeed, delicate and sprightly to distinguish them even from the merry dotted quarters that preceed—all three in the upbow as the change and down-stroke would be too heavy.

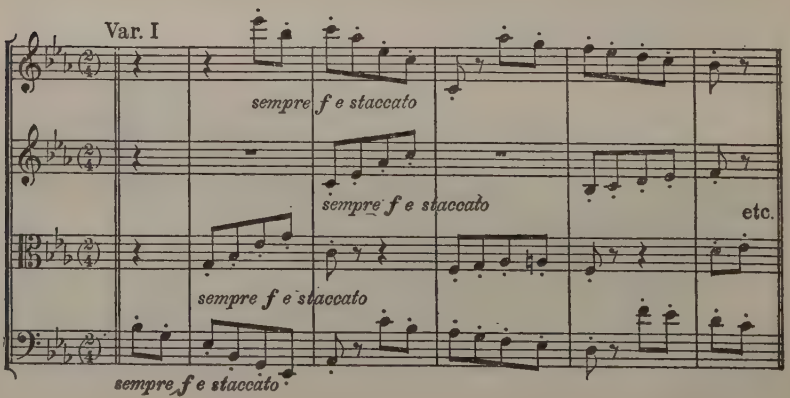
Ex. 2: The dotted quarter may require the *piquancy* of consecutive upbows, like the eighths in Fig. 68.

(FIG. 69)



Ex. 3: Another type of dotted note, the *broad staccato*, is the good shooting martelé, in middle and upper bow, long enough to avoid being dry and literal (as a Kreutzer study taken nearer the point would sound) but crisp enough to avoid getting sloppy and uncharacteristic. The example quoted (Beethoven, op. 74) is sometimes played with heavy staccato near the frog. The first method is perhaps the one with most swing:

(FIG. 70)



Ex. 4: A *softer staccato*, like a subdued martelé, is useful in passages that are not merely accompaniment but have a secondary thematic importance, as in the cello or first violin parts of the following example. This is made in the upper third of the bow, the entrance of each note piquant, but the bow allowed to shoot, not actually lifted, the length to the next stroke, so that the tone rings on consecutively and is yet clear-cut on each note (Beethoven op. 127):

(FIG. 71)

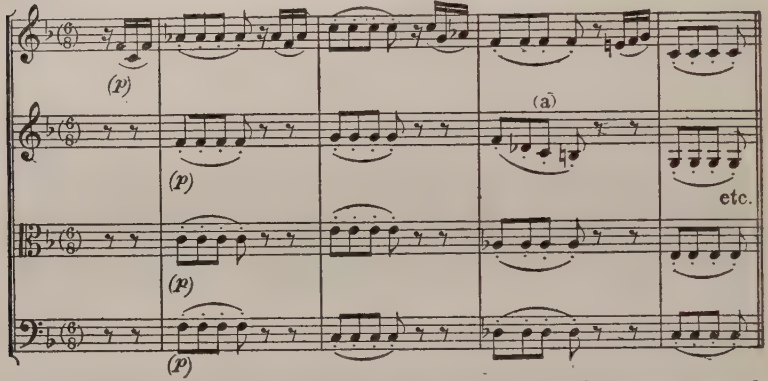
This bowing holds good through piano and a firm crescendo (and in forte, bringing the bow back nearer the bridge, perhaps) and it appears again later in the same movement, in the remote, ethereal *pp* of the coda where it is used gently and near the fingerboard:

(FIG.72)

For bowings of the inner voices through these passages see Ex. 9, page 111.

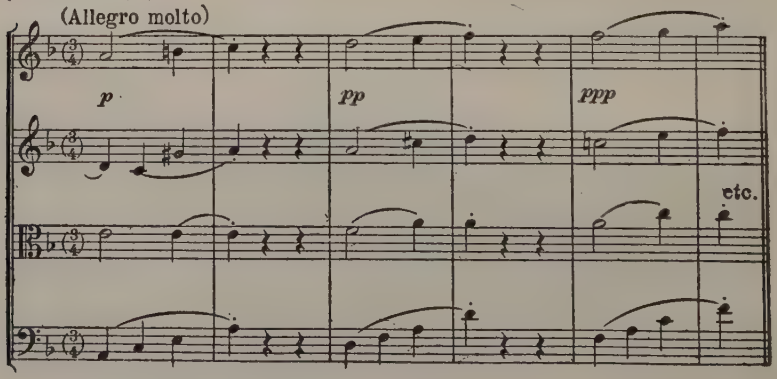
Ex. 5: When several dotted notes are included in a slur, they may be meant to be not short, but simply separated (Mozart, D minor K. 421):

(FIG. 73)



Ex. 6: Or a dot over the last note in a slur may simply mean that the note is *dropped*, not held literally, nor separated from the preceding note, but eased off. In the first illustration (Beethoven, op. 18, no. 1) all the parts being alike marked with a dot, the viola, if it changes bows on its repeated notes, must watch that they are not heavier than the final notes in the other voices. In the second (op. 74, theme of last movement) only the first violin has the dot, and the accompanying voices, being slurred over, should watch that their final eighths are not held too long or let resound too heavily under the solo voice:

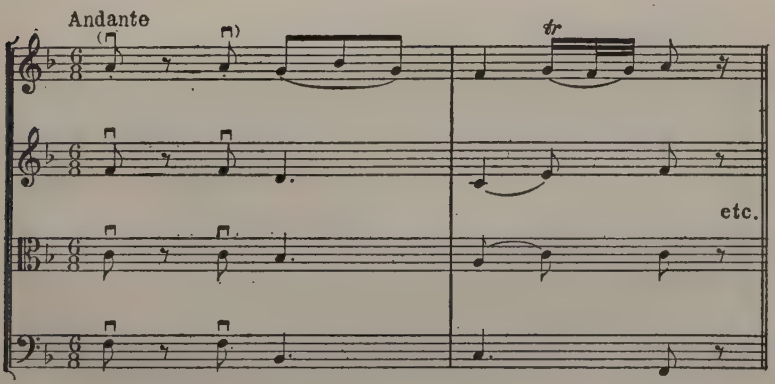
(FIG .74)



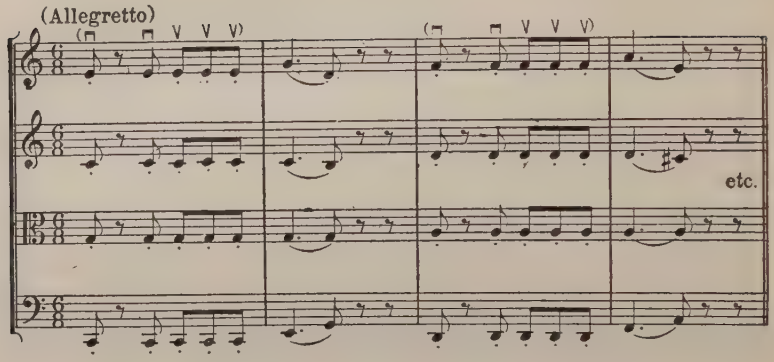
(FIG. 75)

Ex. 7: Sometimes the resonance of a dotted note has, on the contrary to be *lengthened* to *carry over* a rest, though it should not *fill* that rest by being held. This is done by means of a swift stroke, drawn as though for a much longer bow than is actually taken (see II, ex. 3). In the following illustrations this swift stroke is followed by a swift catching-back of the bow to the point at which the next eighth is produced: in the first case the two eighths with rest between are full-length and smooth, being in a singing Andante; in the faster Allegretto of the second, felt in two beats, they are short and light, with only a little and swifter bow:

(FIG. 76)



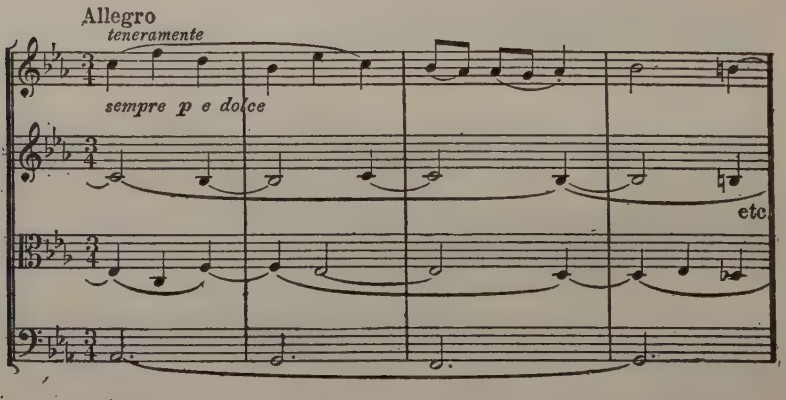
(FIG 77)



II. Unmarked notes, ordinary-looking eighths or quarters, may, because of their value in the phrase or theme and their color interest, need some distinguishing treatment.

Ex. I: Beethoven writes *teneramente* (tenderly) over the opening of the Allegro theme in op. 127. Without this indication there would be an almost mechanical progression of quarter-notes. The *teneramente* may best be achieved, perhaps, by a *feeling* too delicate for any conventional mark, a feeling of just so much *sensitive dwelling quality* upon each of the notes as will distinguish them from ordinary notes:

(FIG. 78)

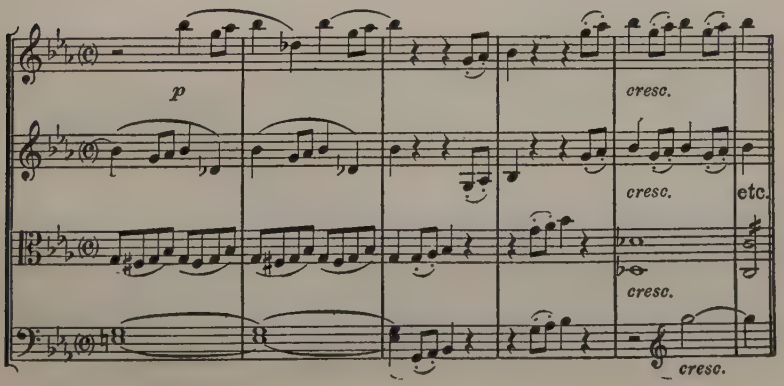


Ex. 2: The eighth-notes in the following theme (Beethoven, op. 74) if played ordinarily straight ahead, lack character:

(FIG. 79)

The figure in which they occur is used throughout the movement in many different ways, observation of which may suggest the proper treatment of them. In the first case they are used as a fragment to build with, and are altered to separated, instead of slurred, notes:

(FIG. 80)

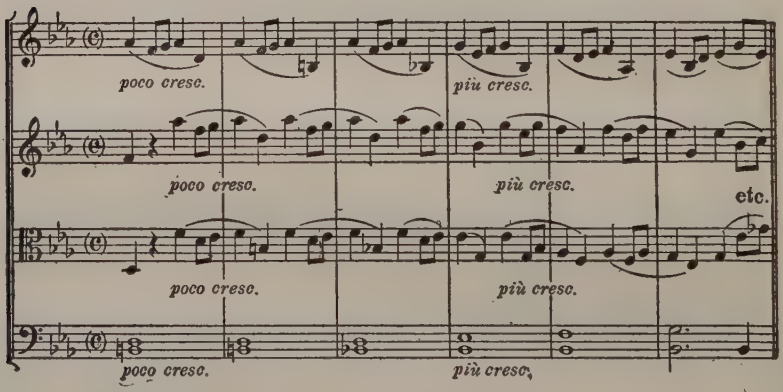


In the second case, the weak beats of the measure are accented and the first eighth bears a *sf:*

(FIG. 81)

In the third case, they figure substantially in the weaving of the sequences:

(FIG. 82)

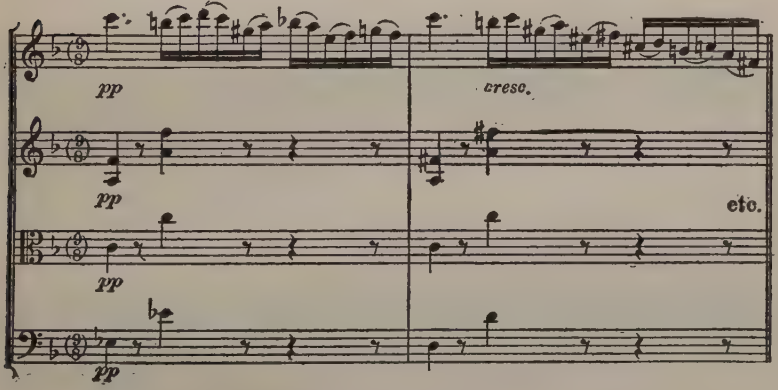


In all three cases they are important in the figure. Upon their very first appearance, then, being on a weak beat, they should be made to sound not casual and trivial but round and full. The fulness is too subtle to be marked even as an infinitesimal *tenuto*, and moreover the slur means that they should be as close and smooth as possible; but let it be *thought* and slightly indicated in the playing.

Ex. 3: We have seen (Phrasing, ex. 4) that a note should sometimes be dropped rather than held its written length. The contrary is also true. The quarter-notes in Fig. 8 would be impossibly broken and dead if they were to *sound* only exactly their written length. At the same time they should not be dragged out. The dilemma may only be solved by producing tones that will ring *after the bow leaves the string.* Here, in diminishing dynamic gradations, should be used the swiftly drawn bow that is *on* the string only for the time indicated by the note, but, by being drawn fast and removed from the string during its forward motion, causes the tone to continue sounding. Played thus, the rests will not be like holes to the player's eye or the listener's ear.

Ex. 4: This resonant sort of tone is useful in accompanying or secondary *supporting tones* like those of the lower voices in the following example (Beethoven, op. 18, no. 1, Adagio):

(FIG. 83)



The Spiccato.

The spiccato bow presents a very particular problem in string quartet technic. The rapid springing notes that sound so clear, piquant and brilliant from the bow of a single violinist do not seem to carry where three or four voices join, but

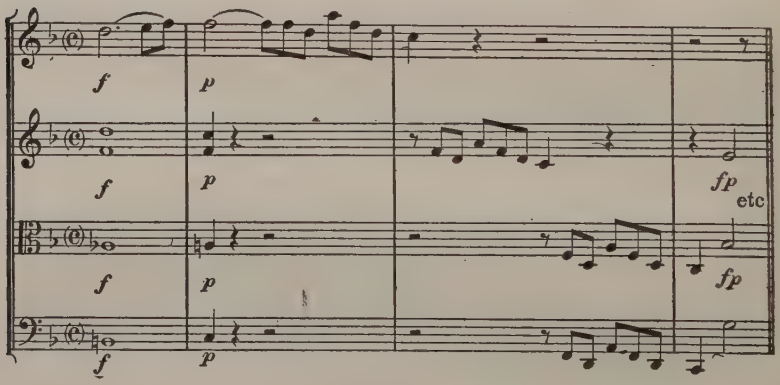
produce a chopping effect, lacking in resonance, insusceptible to blending, and for the most part unsatisfactory to the ear.

I. This is undoubtedly due partly to the fact that quartet music demands as *subdued a technic* as possible and the choppy brilliance of the soloist's spiccato makes each instrument too conspicuous.

Ex. 1: The first violin's spiccato figure in Fig. 37 has no reason to stand out suddenly from the surrounding texture but should, on the contrary, being in *p*, sound as smooth and inconspicuous as possible.

Ex. 2: Where fragmentary figures are passed from one voice to another, a smooth *carrying* quality is needed in the spiccato (Beethoven, op. 59 no. 1):

(FIG. 84)

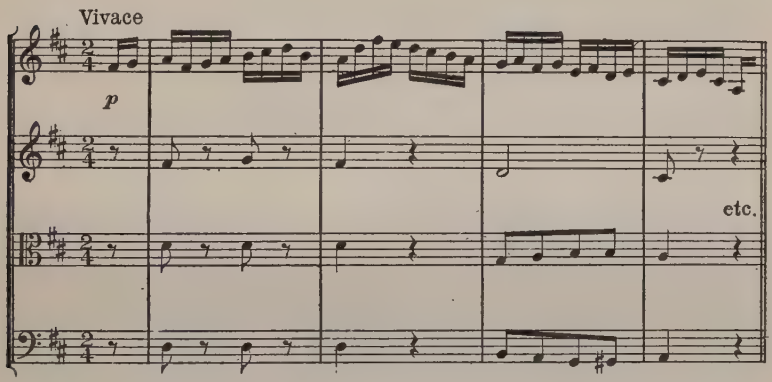


Such a passage shows the need for a *homogeneous* spiccato throughout the four instruments, a thing not easily achieved but greatly assisted by the use of *flatter* bowing than is ordinarily employed.

II. Then again, any one of the four instruments having a solo passage of spiccato must stand out against a background *of more sustained texture* and its tones must not be too brief or they count for nothing.

Ex. 1: A bouncing spiccato would be both awkward and tiresome in the Haydn Vivace (quartet in D, op. 64 no. 5) beginning:

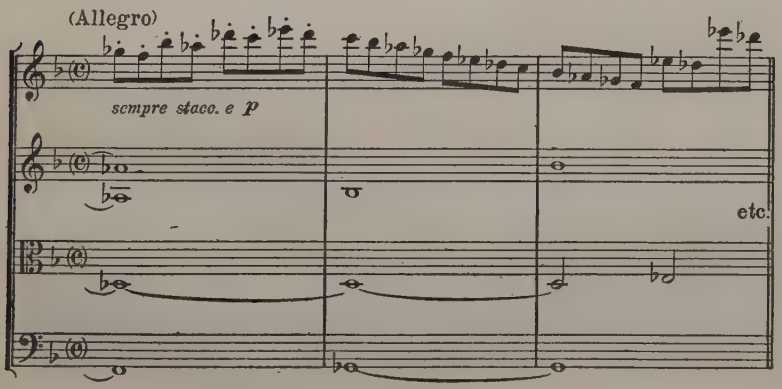
(FIG. 85)



and the speed of the movement requires a *close* bowing, more a *sautillé* than a true spiccato (save, of course, in the case of some violinist's exceptionally fine spiccato).

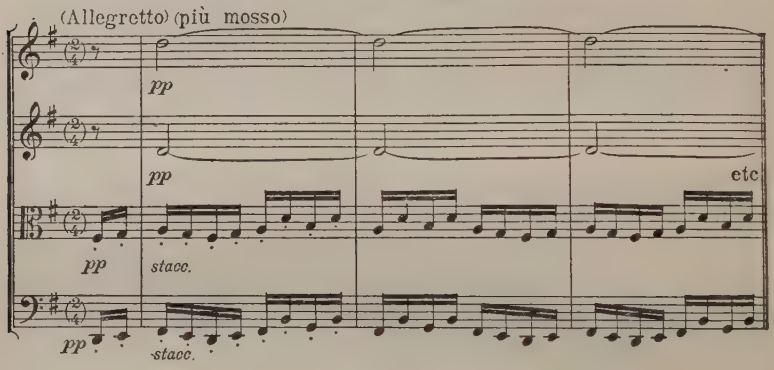
Ex. 2: All through the first violin's extended passage against the sustained progressions of the other instruments (Beethoven, op. 59, no. 1) the ear demands notes *long enough to impress* the meaning of the passing tones, as a short spiccato cannot do:

(FIG. 86)



Ex. 3: Clear articulation of the cello and viola duet in Mendelssohn's Canzonetta (quartet op. 12) is extremely difficult because the low thick strings scarcely vibrate to a minute bow, yet the *pp* color forbids too heavy a stroke. A quick flat spiccato will sound clearer than a bouncing one (the same is true for the violins, although their duet lies easier and a more brilliant spiccato would be in place therein):

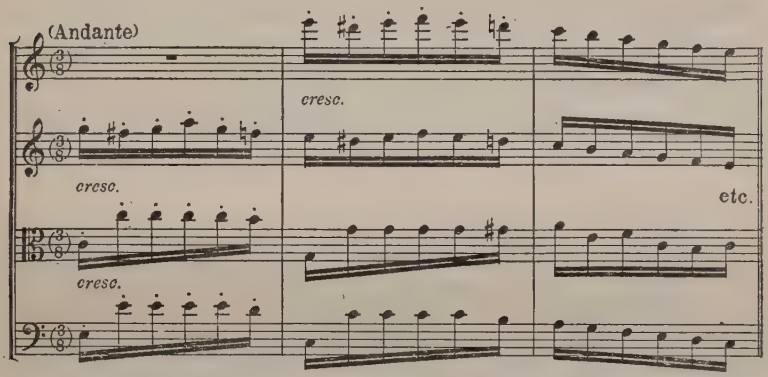
(FIG. 87)



III. Again, the *whole harmonic texture* of a spiccato passage being conveyed by four voices only, not one of the rapidly passing tones can afford to take less than its fullest possible value, in order that the ear may be convinced beyond a doubt of the intended progressions. The demands thus made by the music should be considered. A comparison of two superficially somewhat similar scherzo movements of Beethoven—the *Andante Scherzoso quasi Allegretto* from op. 18, no. 4 and the *Allegretto vivace e sempre scherzando* from op. 59 no. 1—will demonstrate clearly the fine differences needed in the treatment of the bow according to the harmonic demands of the music. The slower tempo of the Andante makes possible the production of more piquant tones than are feasible in the Allegretto, although in loud places the stroke will natu-

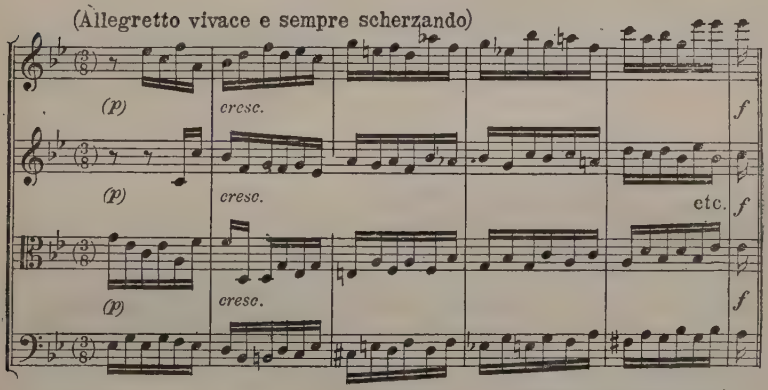
rally flatten and lengthen to produce enough sound. The harmonic writing in the Andante, moreover, is far simpler, containing fewer progressions, also octaves and repeated tones:

(FIG. 88)



than that in the Allegretto, where the voices move more independently and change harmonies constantly:

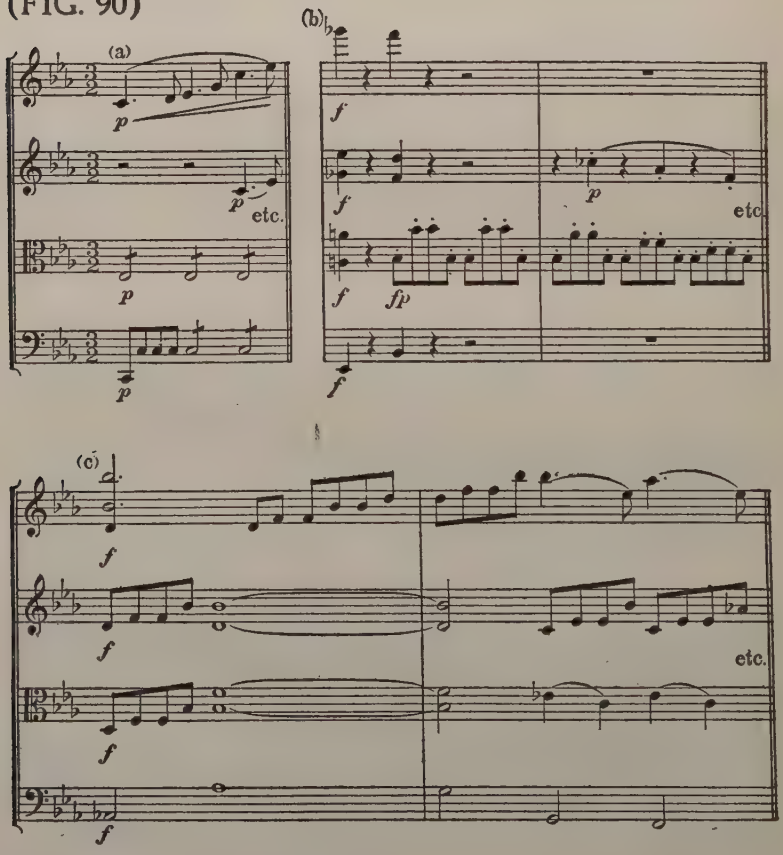
(FIG. 89)



Only a subdued spiccato, *very even* throughout the quartet, giving resonance to each note, will enable the ear to grasp the complex progressions of the second example—a skipping bow leaves them dry and soundless.

IV. These were probably the considerations Brahms had in mind when he remarked that the virtuoso's spiccato rarely has place in the performance of quartet music. His own music certainly demands fulness in every passage, long resonance from notes that look short on paper, to give up the richness of his thought in color and quality. The first movement of the C minor quartet is thoroughly characteristic: the *long spiccato* accompaniment of the opening theme (a); the varied phases of the figure (b), *lighter spiccato*, nearer middle of bow, when in *p;* the heavy *forte* notes, *long spiccato*, near the frog (c):

(FIG. 90)



V. Reference will be made in this chapter to different types of spiccato in characteristic accompaniment figures (see especially Figs. 1 and 94). To these should be added that of Fig. 22, where once more the ordinary spiccato gives no satisfaction to the ear because it does not amalgamate with the serenity of the theme. Again the subdued, longish stroke whereby the eighths are just perceptibly disconnected, must take its place. Such a case should be watched lest, in acquiring the necessary resonance, the accompaniment grow too loud.

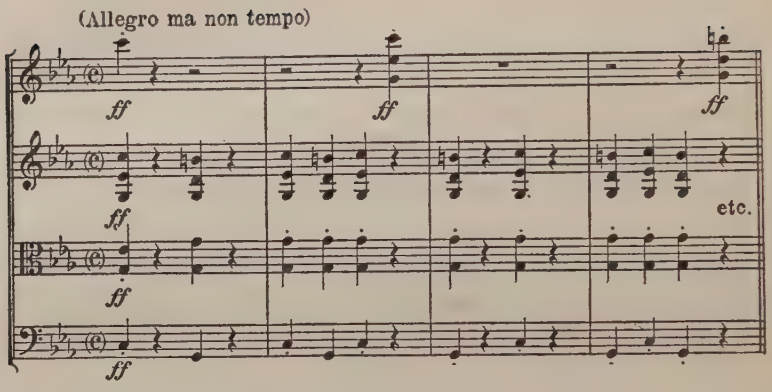
Chords.

Chords of three and four notes cannot be played in the quartet as they are in solo. The arpeggio, where the notes are taken two and two is almost never used—unless indicated for special tonal effect—because it sounds sloppy in the close transparent texture and it is at best hardly possible to get a good ensemble on it. The contrapuntal type of chord which consists of two or more voices meeting, as in the Bach violin or cello sonatas, is again not feasible in an ensemble. This leaves practically but a single type of chord: that in which the three or four notes are *struck simultaneously.*

The peculiar difficulty of these chords is that they must by *full-fledged at their inception.* Their worth is *all in the striking* and there is no possibility of redeeming their tone after the initial instant. These chords possess *much more strength* and carrying power than the more sweeping arpeggio because of this initial moment in which the tones *all sound together.*

Absolute precision is necessary in taking such chords: precision of the bow upon the strings, of ensemble, of intonation (lest the vigor of the stroke falsify the tone). An example will be found in Fig. 57; also in the following measures (Beethoven, op. 18, no. 4):

(FIG. 91)



(Note that a slight backward tendency of the frog—which on the cello amounts to an oblique stroke—evens the notes and counteracts the natural conspicuousness of those on the middle string.)

Even at the close of a movement where large tone is wanted and a sense of finality, it will be found that this struck chord produces *more* tone than the arpeggio which one is tempted to use. In an effort to achieve these qualities some quartet players try to hold the chords longer, to make them heavier than their written length; but it is almost invariably true that the brisker, struck chord has more resonance, and is, further, more in keeping with the style of such a finish (especially in Haydn, Mozart and Beethoven) than any other.

Varieties of Accompaniment.

The steady figure in eighths or sixteenths, the *downright accompaniment* that serves principally for harmonic background, is one of the great means of producing color and textural effects. It is not enough to read notes slurred or

separated, forte or piano. They may be written exactly alike in very different types of music; or in one spot they may be called upon to convey one color, in another something else.

I. *Detached notes* provide a great variety of background color.

Ex. 1: In the opening of Haydn's D minor quartet (op. 76, no. 2) the second violin, viola and cello play a vigorous, broadly detached stroke, not abrupt but vibrant as though written: to support the broad, minor character of the first violin's sonorous theme in fifths. It is best bowed in the lower quarter of the bow, near frog:

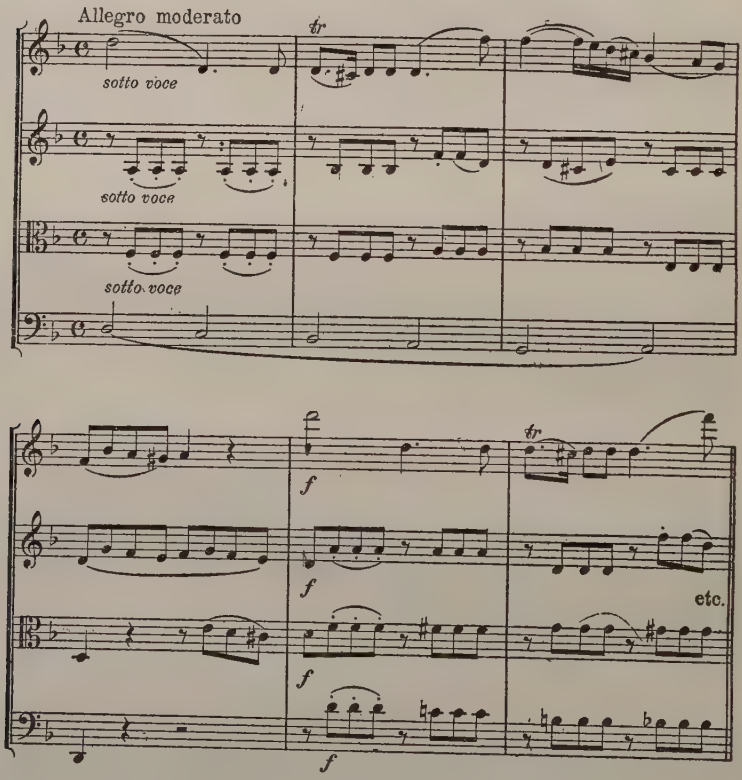
(FIG. 92)

The same figure opens the second half of the movement, but reversed, the upper voices heavy to meet the cello's solo. Then it appears later in *piano*, again not a skipping staccato but a vibrant *détaché*, with less bow, taken a little higher up, to give the softer color and gentler texture of the *piano*.

Ex. 2: The second half of the opening phrase of Mozart's D minor quartet (K. 421) offers an apparent parallel, but

there is a slur tying each three notes into one bow, and moreover this portion of the phrase is related to the preceding half in *sotto voce*. The effect of the bowing in forte should be quite different from the preceding example, requiring both a smoother and a more clinging bow, all hairs on the string, bow scarcely lifted but marking the detachment of each note with a little biting start, moving from upper middle to near frog and back:

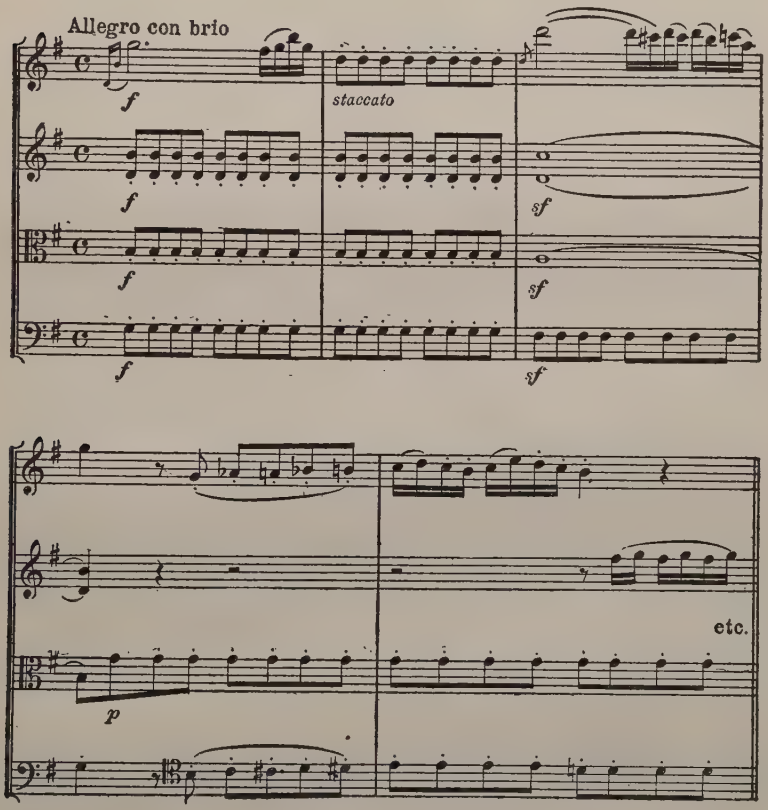
(FIG. 93)



The four bars which open the movement *sotto voce* would need a similar stroke, with of course less bow, upper middle, perhaps a little towards the fingerboard for color, to furnish an appropriate background for the softness of the melody.

Ex. 3: A livelier bowing than in Ex. 1, but still broader and flatter than the spiccato, obtained by playing in lower portion of bow, is required in the jolly opening of Haydn's G major quartet (op. 54, no. 1):

(FIG. 94)



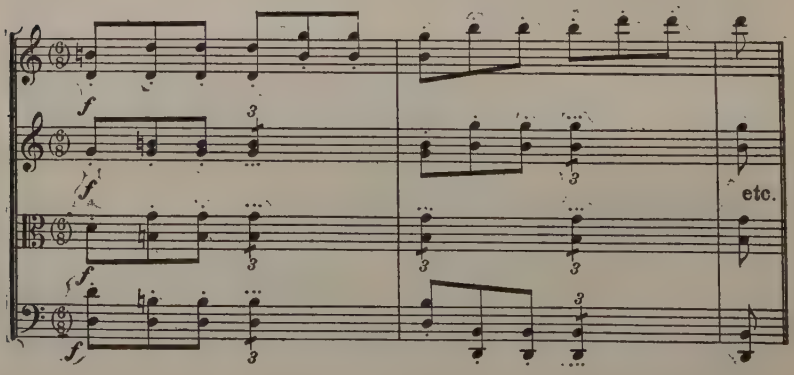
When the viola drops to piano it keeps a similar stroke, in a less dynamic degree, fresh and vibrant, while the cello and first violin treat the chromatic dotted eighths as *slightly* detached only, in one long upbow, since they are *thematic* and should stand out against the *accompanying* eighths of the viola.

Ex. 4: A more clinging, singing, smooth bow, on the other hand, only just noticeably detached (middle and upper middle) is required of the accompanying voices in the Allegretto of the same quartet to fit the singing quality of the violin's melody:

(FIG. 95)

while the dotted eighths in the following forte measures could not, owing to the style of the piece in general and being the biggest part of the whole movement, be literally staccato, but should be full in tone, broadly played above the frog:

(FIG. 96)



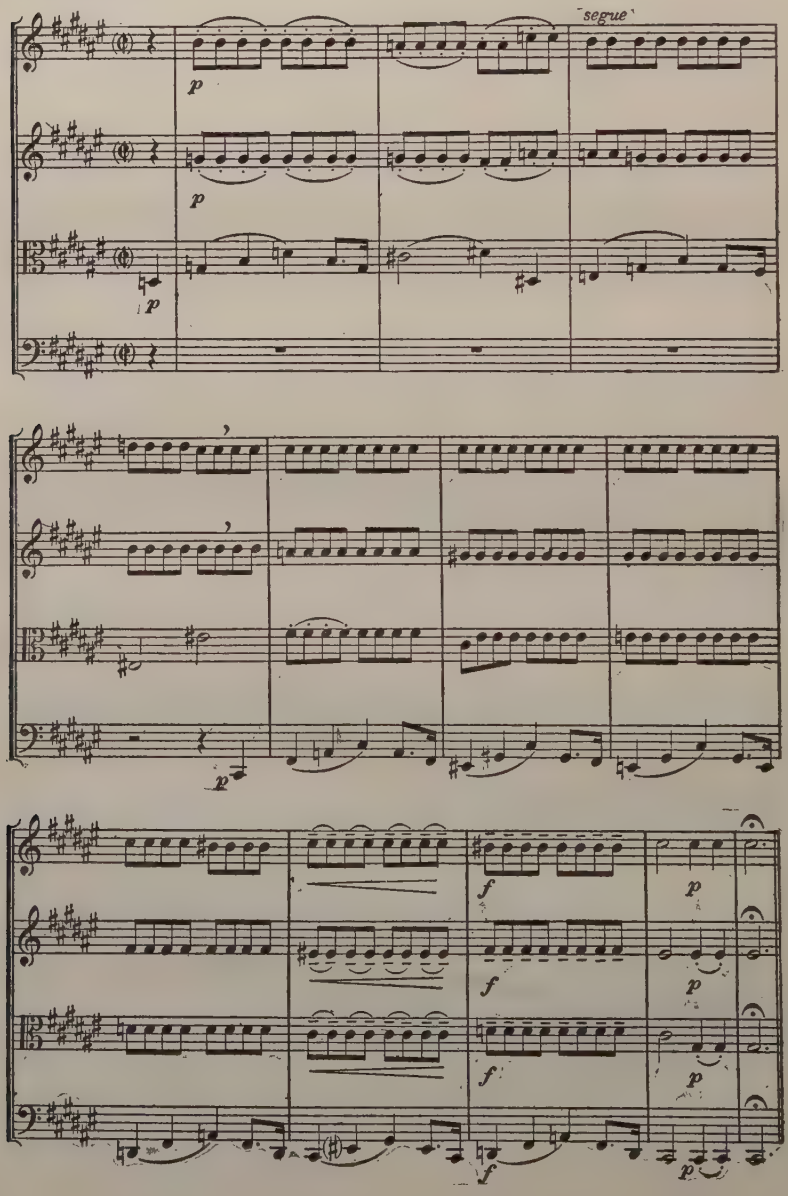
Ex. 5: The following passage (Haydn, op. 76, no. 5) calls for sustained quality as the quarters with dots would obviously lose dignity if interpreted staccato after the broad organ-like effect of the opening theme "*cantabile e mesto.*" The danger is that in being sustained the notes may drag, three voices heavily underlying the little figure of the first violin sounding disproportionate. The best effect is obtained if the bow is drawn smoothly along and each quarter marked as with an *accent*, a little push to the bow, which will give the effect of a *pulse*, renewing but not breaking the wave-length of the tone. This avoids the tendency to stick, preserves the movement forward as a slowly pulsating current into which the first violin's figure rhythmically fits:

(FIG. 97)

Ex. 6: Dotted eighths like those illustrated in Fig. 73 on the contrary require the *sticky quality*. Without it the music runs by too insignificantly, since the notes, being repeated, have not even the interest of change and must be made interesting entirely by their quality, distinctly separated but closely adhesive to the string.

Ex. 7: In the Haydn *Largo* just cited (Ex. 5—see also Fig. 11) there are ten measures, in the interlude before the return-to-the-beginning, of steady accompanying eighth-notes:

(FIG. 98)



The detachment here should be veiled, accompanying the viola's, and subsequently the cello's *piano* tone, passing off with a certain flat colorlessness which is very effective in the unusual harmonic changes (upper portion of bow). But as the tone increases in the crescendo measure it should take on more color, fulness and vibration, the eighths should be adhesively lengthened until in the concluding forte they give again (separated, lower portion of bow) the organ-like effect which characterizes the opening of the piece. The markings given are a suggestion for their treatment.

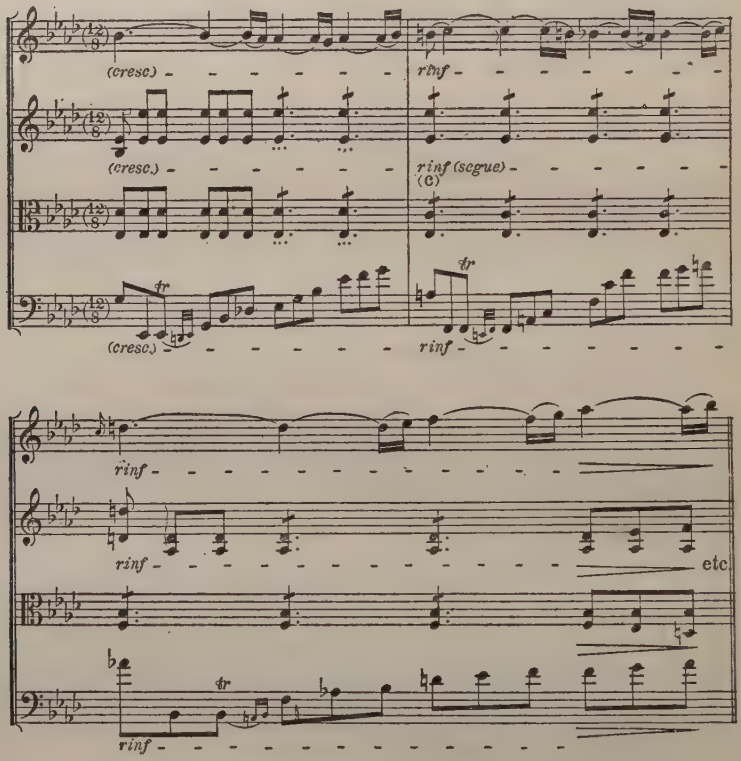
Ex. 8: The last movement of the same quartet (Fig. 1) presents yet another value of the dot. Here the whole material is built on a lively figure in which the dotted notes are really short (a) and even in forte need direct, chopping action of the bow, at frog, all hair on string (b). When the viola and second violin, therefore, start their accompanying figure in piano (c) it must be with a crisp and unflagging precision (like saying the syllable *ta* as rapidly as possible distinctly on the tip of the tongue: *ta ta-ta-ta ta ta-ta-ta*) a very close spiccato, well-controlled, in which each note must sound equal, instantaneous, with mechanical persistence.

Ex. 9: The accompaniment figure running through the Tempo I. passage of the Adagio from Beethoven's op. 127, goes through many stages of dynamic value and so of color value, from its *pp* entrance:

(FIG. 99)

through the various pianos and crescendos, and through the measures quoted in Fig. 71, to the growing, constantly renewed *rinforzando* that eventually builds up a large body of tone:

(FIG. 100)



Perhaps a vibrato-less pianissimo to mark the change of key E-E flat (a); then very *quiet* detached groups of three (upper portion of bow) (b), more bow naturally used in the crescendo, and finally in the rinforzando (c) separate and very vibrant strokes (lower portion of bow).

Ex. 10: In the coda of the same movement occurs that ethereal, remote passage (Fig. 72) which only the bow on the fingerboard, drawn with a soft windy quality, can pro-

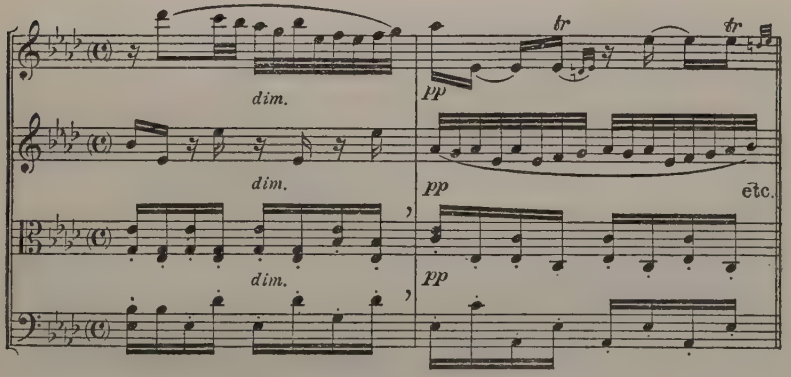
duce (a), withdrawing again to the usual position on the strings with the crescendo into the fuller tone-quality (b).

Ex. 11: In the Andante of the same movement there is yet another type of dotted accompanying figure, upbow, vibrant, rhythmic, resounding to make a background for the violins:

(FIG. 101)

continued in the regular figure which might be called a staccato of a crisp softness, neatly and lightly handled by the bow, again mechanically precise as to up and down strokes (lower portion of bow):

(FIG 102)



II. The foregoing examples have all been of types of detached notes in accompanying figures. *Slurred* figures should be subjected to the same sort of inspection and tests in the search for color of which they are a fruitful source. They may be treated in several ways. Long even strokes of the bow give them a sustained fulness, short neat ones a piquancy; the *crossing* of the bow very distinct so that the notes are clean-cut, or scarcely perceptible, so that they sound almost like double stops. The fingering may be purposely chosen to cross the strings as much as possible, making the groups distinct, or, when suitable, producing a pedal-like resonance by an adhesive bow, or it may remain on one string as much as possible to keep the groups inconspicuous and smooth.

Ex. 1: In the following instance (Haydn, op. 76, no. 1) since the melody is a quaint, piquant one, not large or heavy in tone, the short strokes (four notes to a bow, just above middle, where bow crosses most clearly) with slight emphasis on the upper, more melodious tones of the chord, give a live and vibrant, neat, adjustable background:

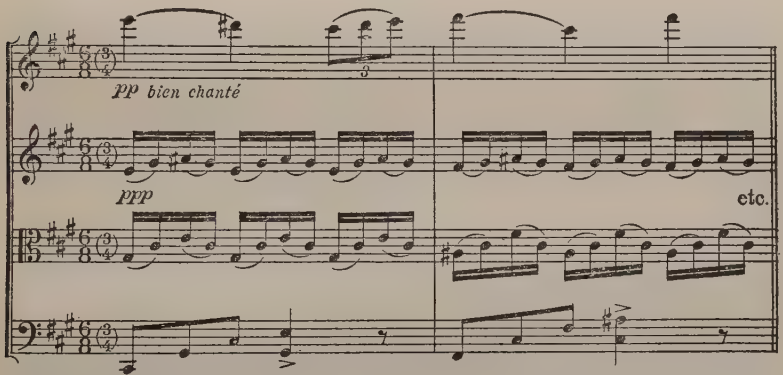
(FIG. 103)

At the recurrence of the figure in the second half of the movement, the same effect would be best achieved by crossing the

strings as much as possible rather than fingering the groups on one string.

Ex. 2: In the sixteenths figure in the Ravel Scherzo, on the other hand, with its triple *ppp* under a *pp* melody, a warbling, blurred effect is called for, very fluent and, while harmonically clear, the strokes and fingering must be inconspicuous (point of bow, near fingerboard, with a sliding motion, very even to conceal the crossing of the strings where necessary, fingering as much on one string as possible):

(FIG. 104)



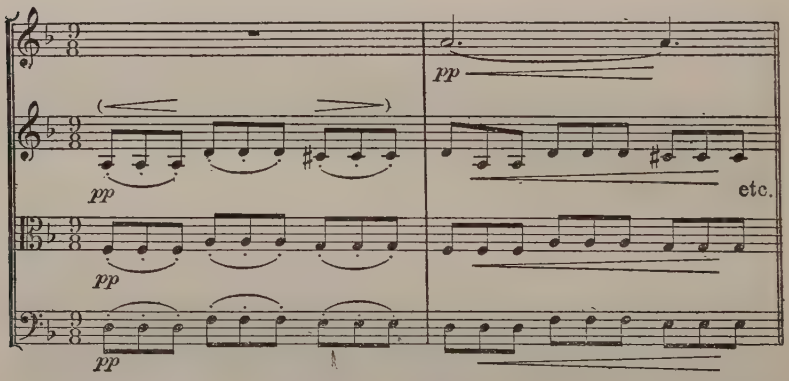
The above excerpt from Quartet by Ravel used by permission of A. Durand & Cie., Paris, France.

Ex. 3: In Fig. 19, a smooth, shadowy background should be laid by the second violin for the strange color of the melody played by the first and viola. Again the bow near fingerboard, rather windily drawn, fingering by all means on one string, with strong fall of fingers (the harsh tone of the open A would be disturbing).

III. An accompaniment in a characteristic figure has often to take to itself, where it is prominent, a *soloistic quality*. An introductory measure or a bridging measure, or perhaps a measure that gives the principal harmonic color, must be made to stand out, still as accompaniment, but with a warmer, more independent and forthcoming tone.

Ex. 1: The following *introductory* measure (Beethoven, op. 18, no. 1) is made more interesting by the slightest crescendo and diminuendo, almost imperceptible, yet such as to command the listener's attention at once for what follows. This would have two advantages: first, it would throw the second measure back to its proper value of very subdued accompaniment, allowing the extremely soft beginning—like no beginning but a continuation in the actual of something that has been inaudibly remote—of the first violin's A; second, it would open the movement more in the spirit of its "affetuoso ed appassionato."

(FIG. 105)

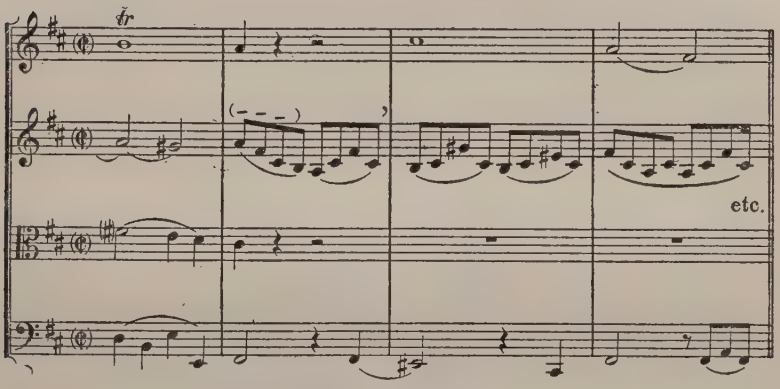


A similar effect would also be necessary at the altered recurrence of this measure in the second half.

Ex. 2: In the following *bridging* measure, after the decided resolution in A major, it is the business of the second violin both to *lead over* to the next phrase with a tone strong enough to cover its solitude, yet still consistent with its accompanying character to which it must drop back at once at the entrance of the first with the new melody, and to define beyond a doubt,

by the least dwelling on the A-F♯-C♯, the unexpected change to the minor in which the next passage is cast:

(FIG. 106)



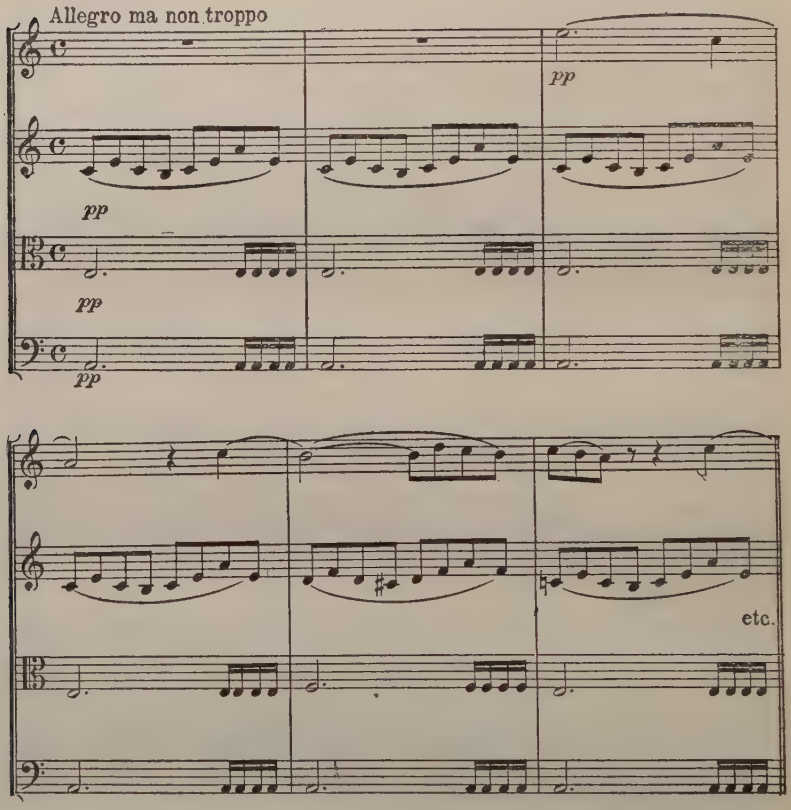
Ex. 3: A fragment of accompaniment may acquire importance because it effects the harmonic change that gives the figure character. In Fig. 73 the second violin takes this matter into its own hands. It may be thought that, being the only voice to do anything at that point, it already has sufficient prominence; but experience will show that it is the *quality* of that prominence which counts: it must be something more than obvious, it must be convincing. The four notes (a) need the warmth of a tone soloistic yet proportionate to the other three voices. Sixteen measures later it is the viola that carries the same change and then it should stand out proportionately.

IV. We now come to a more independent type of characteristic accompanying figure, which has an *interest of its own* to be considered.

Ex. 1: This interest may be melodic, as in the quotation following (Schubert, A minor) with a running fluency that weaves in and out the current of the music, giving a back-

ground for a more defined theme yet possessing a color interest in itself:

(FIG. 107)



It is important to bear in mind the color value throughout, to change it where indicated by swells and *fp*. The first two measures of introduction perhaps starting not too soft, diminishing, all within the frame of the *pp*, to even less where the theme enters; soft throughout but not so soft that it lacks definitely interesting tone-quality.

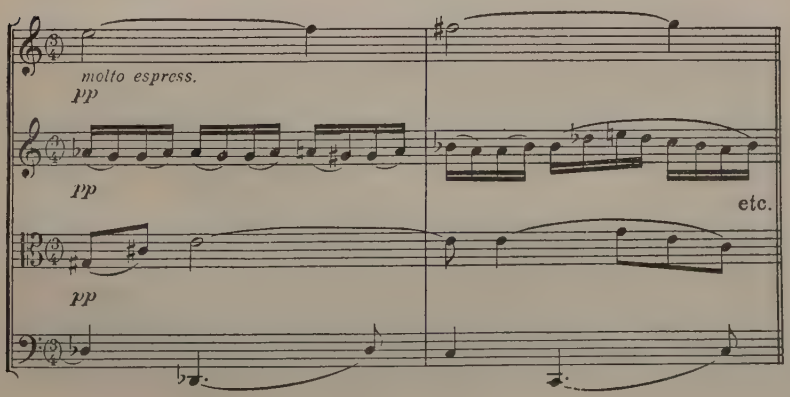
Ex. 2: Or it may be more distinctly harmonic, as in the Larghetto of the César Franck quartet, where it is practically a broken chord, giving richness, solidity of texture—again the

organ color. The massive harmonies pass through a variety of textures each of which should be given a characteristic treatment to provide different backgrounds for the melody of the first violin, now subdued, now soaring. Beginning with an arpeggio *ff* in which every note of the second and viola must be vibrant and of full value (melodious as well as carrying the chord, yet not overwhelming the solo of the first violin):

(FIG. 108)

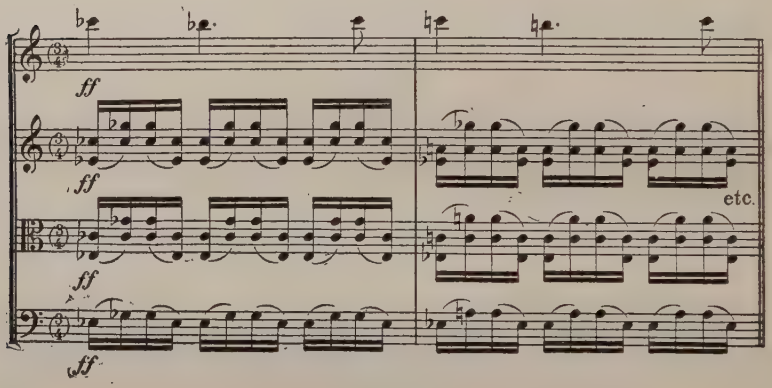
dropping to *pp* where the second alone carries the characteristic chromatic figure, soft and fluent, fingerboard tone (upper portion of bow) like a whisper (carefully not increasing until the fourth measure):

(FIG. 109)



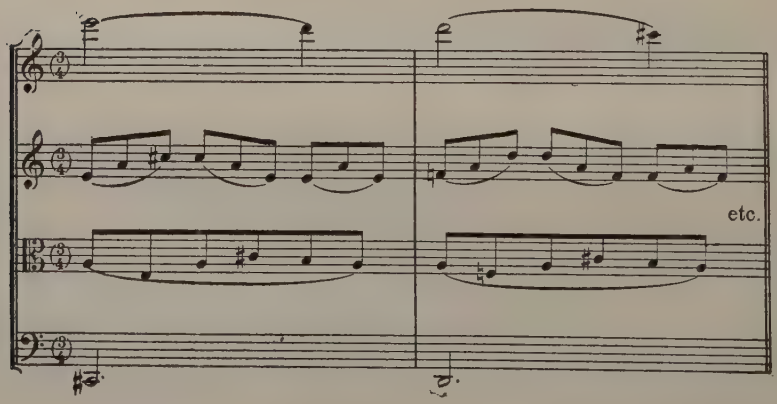
working up gradually through a swimming, even, growing chord to the great sweep of the *ff:*

(FIG. 110)



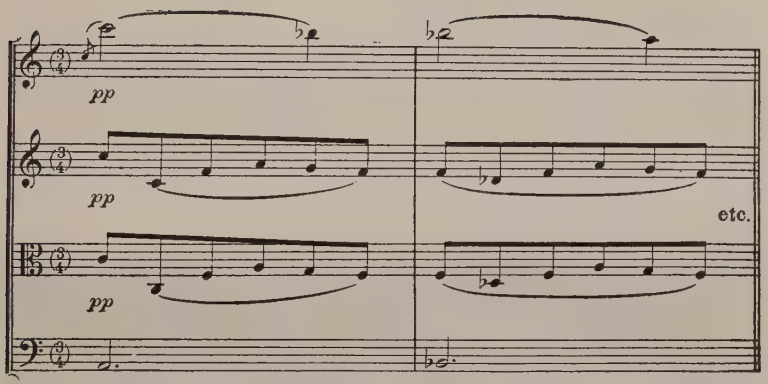
beginning again *piano dolce*, triplets against eighths, both melodic figures supporting the harmony:

(FIG. 111)



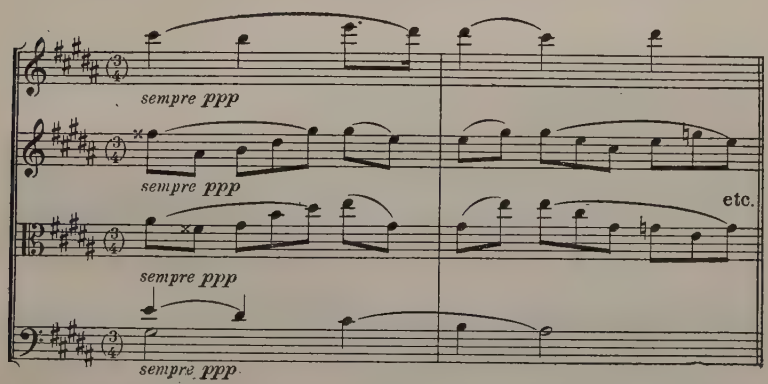
echoed, as it were, in the hollow octaves, *pp* (very soft bow and tight fingers):

(FIG. 112)



through the plaintive upward chromatics of the second which guide into an even softer, bell-clear figure of alternating eighths and triplets, accompanying the returned first theme:

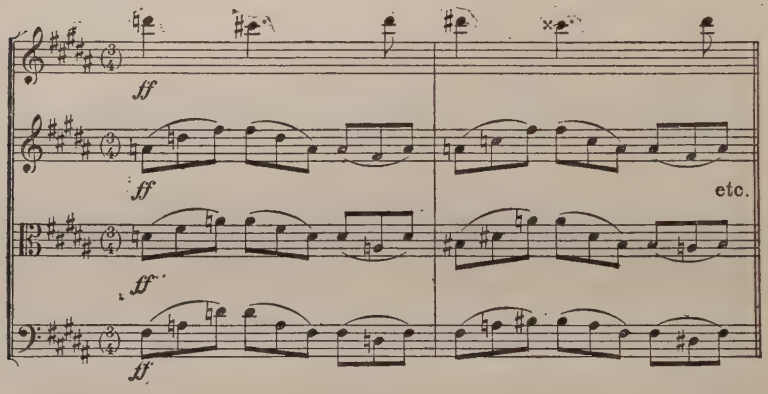
(FIG. 113)



culminating in an excited *ff* in swinging triplets, again full in

harmony, every note to sound out strong, melodious and vibrant, with firm bow and beating fingers:

(FIG 114)



Ex. 3: Or again, the interest of the figure may combine accompaniment with working in melodically with the theme, as the second violin part does in thirds and sixths, in the following passage (Beethoven, op. 74). The dotted thirtyseconds may be played either as a long spiccato (lower middle, bow taken off between notes) or at the point as a staccato, in either case dwelling with a little tenuto on the melodious notes:

(FIG. 115)

This passage should be played with freedom while subsidiary to the first violin's melody—the freedom characteristic of the string quartet style which leaves each instrument its individuality without upsetting the frame of the whole.

Proportion and Relations Between Voices.

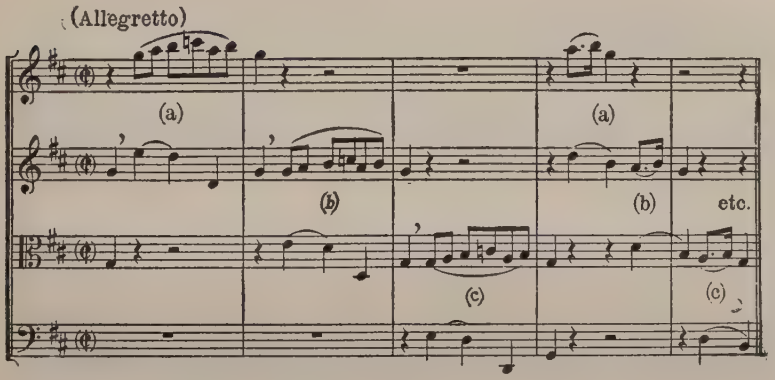
The composer's indications of piano, forte, etc., are for the most part only general, and, because of their inevitable relativity, they have to be specially considered to produce the best effects. Skill in handling the varieties of color and texture, readiness to think and plan, and critical listening to measure the *achievement* as distinct from the *intention* are, as we have frequently remarked, most necessary to the quartet-player's equipment. So should he cultivate his sense of the *relative proportions* of the voices to each other in various circumstances, finding herein a new source of color.

I. The proportion which he will most naturally consider is that of accompaniment to leading voice. A downright accompaniment, such as those we have just examined, not only takes on an *accompaniment quality*, but molds itself to the voice it accompanies. In modern scores it is often marked with a less dynamic degree than the solo; but in older scores, even after Brahms, both voices are usually marked the same —*p*, or *mf*—and one or the other has to adjust its degree of *p* or *mf:* say, if the accompaniment is purely subsidiary, for background color, it may have to call itself *pp* to the other's *p*, or *p* to the other's *mf*. If, on the other hand, it is characteristic and possesses melodic as well as background value, so that it should not be too soft, then it may adhere to the full *p* or *mf* and the other voice, which has still to sound above it, will need to take a slightly stronger tone than it would have done had it been alone. In these instances *quality* often accomplishes the end better than *actual volume* of tone.

Ex. 1: This is neatly illustrated by a figure (Mozart, K. 499) that is passed quickly from one voice to another down the range of the quartet. The second violin accompanies the first (a) then switches to solo-quality accompanied by the viola (b) which then in turn switches to the solo (c) accompanied by the cello, the whole series repeated with a fragment of two beats. In each group the one quality must be drastically *finished* before the other begins (see Phrasing, I, ex. 1) as though two different instruments were handling the change. This is a very skillful piece of juggling on Mozart's part and

will be found to require some practice before the achievement is as smooth as the idea demands:

(FIG. 116)

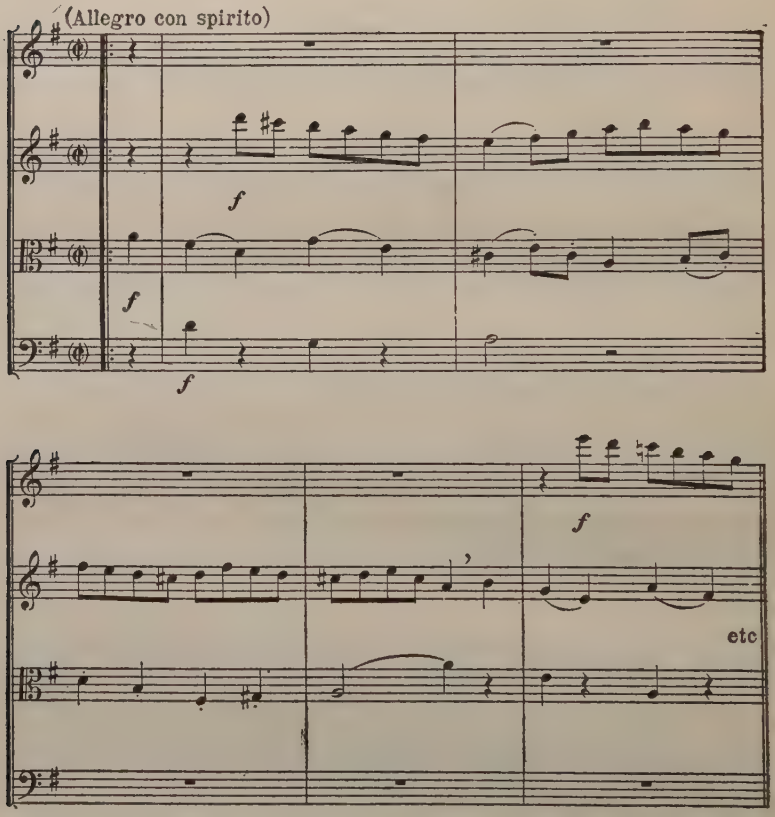


II. While these considerations are fairly obvious in the relation of accompaniment to solo, they also, and very particularly, apply to instances of relative strength where *both voices are of the same*, or almost the same, *importance*. Here again *quality* often controls the proportion quite as well as volume. The fact has also to be considered that a low voice, like the cello's or the lower strings of the viola, easily inclines to dominate any middle-register tones; also that the high registers of the violin may be penetrating and brilliant. In short, it is for every voice, in manipulation of color as in the spirit of ensemble, to be ready to adjust itself to what is going on elsewhere in the quartet.

Ex. 1: A case in point occurs in the opening of the second part of the Haydn quartet op. 76, no. 1. We have heard the theme—now restated by the viola—so often that it is refreshing to hear the counterpoint of the second violin as a change; but as the tone of the violin is higher and naturally more brilliant than that of the viola, it is liable to sound too penetrating if played with a full forte. Similarly, when the first violin

takes up the counterpoint, it should beware of sounding too brilliant against the middle-register of the second:

(FIG. 117)

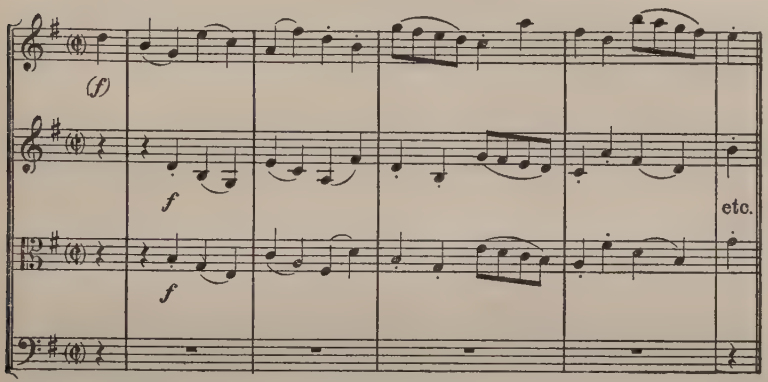


At the recurrence of this passage later on, the sonority of the cello easily holds its own against the brilliance of the first violin, which should, however, again be sonorous rather than harshly brilliant.

Ex. 2: In the *stretto* immediately following the measures last mentioned, the second violin and viola, while playing with a vigorous quality, should beware lest their sonorous duet in

thirds too greatly outweigh the single voice of the first violin, striving upwards with the same figure:

(FIG. 118)

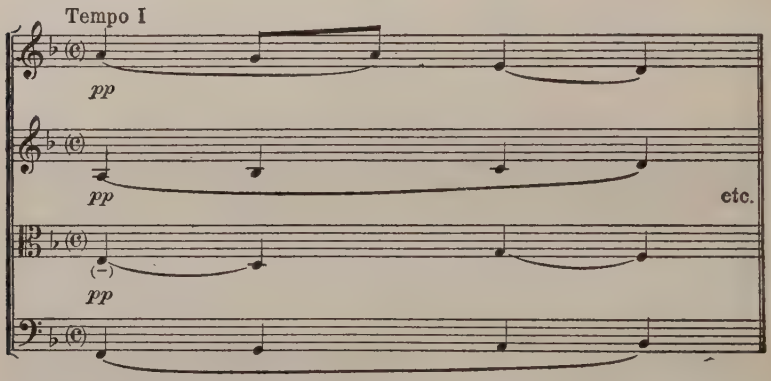


III. We have discussed (Phrasing, II) the need to emphasize the voice that has the important statement of the moment, not alone in melody but in fragmentary figures, bridging tones, or tones that mark a modulation. The value of one tone in a chord may be of the greatest importance to the harmonic and color effect. A diminished seventh, a major or minor third, a raised or lowered interval, the modulating tone of a progression—in short, the tone that gives a chord its particular interest—must *sound distinctly through the texture* of the four voices in order to give character to the harmonic content, meaning to the musical content, and to carry with conviction to a distance. The *proportionate emphasis* is particularly necessary in the case of a *discord* and in that of an *unexpected progression.* The player's own ear will demand that the discordant or unexpected tone be very definite lest it sound like an error, and for the listener at a distance this will be doubly necessary.

Ex. 1: In the first movement of the Ravel quartet the main theme recurs as in the beginning *except* for the viola-part. The

viola repeats its E of the preceding chord, which is distinctly *not* held over the bar but struck anew with the phrase itself. It should be emphasized as with a slight tenuto, to convince the listener of the strange color of the E dissonant, lest he assume it an error, meant to be F:

(FIG. 119)



Ex. 2: At the end of the same movement occurs an example of the import of a single note in the harmony (see Fig. 121) where the *a*scending progressions of the first violin are balanced by the *de*scending progressions of the viola. As the eighth measure strikes, the peculiar color of the chord is lost unless the viola's F-natural is heard distinctly. In the remainder of the measure also the viola's tones should sound through the rest as the underpinning of the chord-progressions, although the violin keeps the original thematic figure.

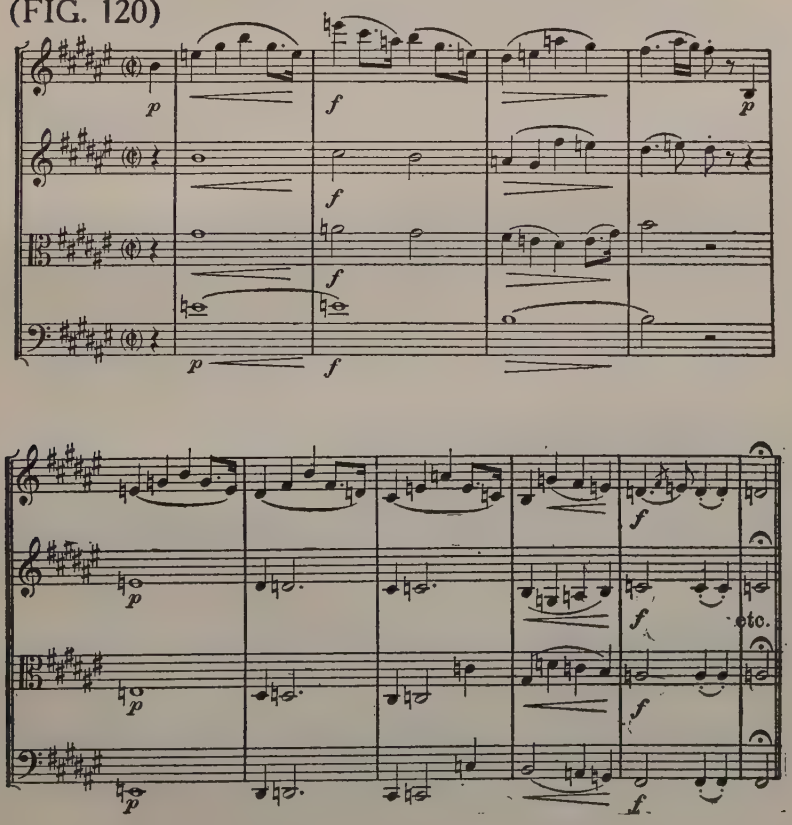
String Color.

The four strings of the violin, viola or cello have distinct color characteristics which are never so marked as in the clear, homogeneous texture of the string quartet. Here, as we have seen, each voice is thrown against a background of its own kind, while the pure string tone, undisturbed by the admixture of any other type of instrumental tone, is at its most sensitive. The violin members may acquire the habit of avoiding the open E string if it is harsh; but there will be times when its white brilliance is desirable. Call the A of mellow sweet-

ness, the D sombre, the G sonorous and deep. The viola's A inclines to be nasal, the cello's again is its lightest string and most amenable to song. The color values and contrasts of which the sixteen strings of a quartet are capable are nothing short of amazing, and they demand much consideration in perfecting the whole color-scheme of a performance.

Ex. 1: The following eight measures (Haydn, op. 76, no. 5) present two distinct phrase-groups in which the most interesting color and appropriate contrast would perhaps be obtained by the first violin playing the first group as much as possible on the light color of the E string and singingly, but the second group, being an extension, without expression, leaving the interest to the chromatic descent of the lower voices, until the crescendo:

(FIG. 120)

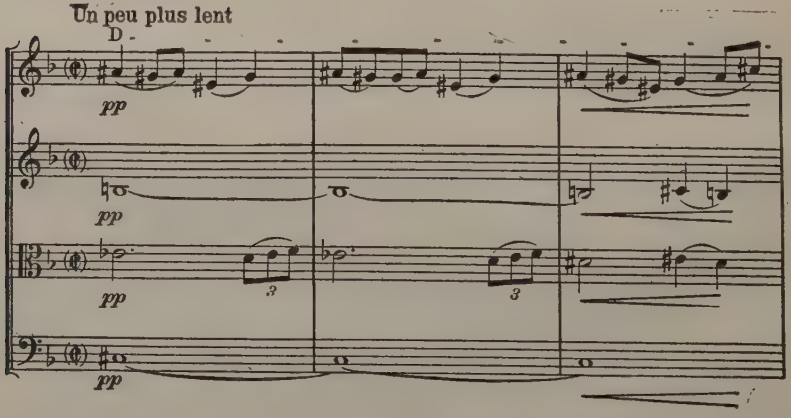


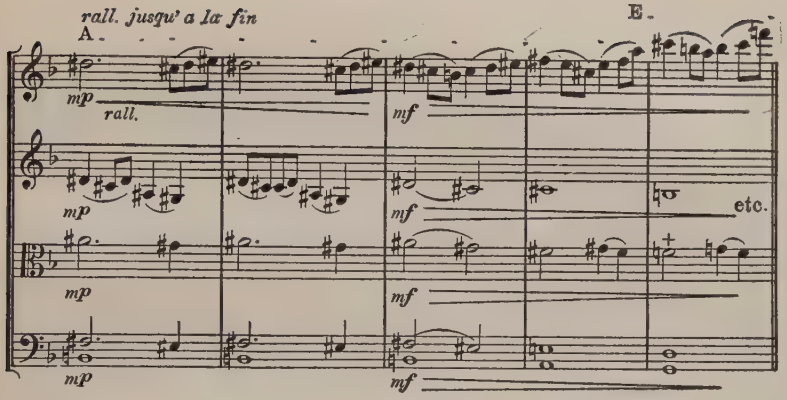
Ex. 2: In Fig. 47, from the first movement of the same quartet, it would be most effective to take the four little sixteenths on the D string, after the *fz* on the A, giving them a darker, more caressing tone than would the continuation of the A.

Ex. 3: In Fig. 59 the first violin would increase the interest of the color-change from *f* to *p* by taking its first *p* note on the next string: G-natural on the G string after the D string, (at recurrence in second half of movement, C-natural on the D string after the A).

Ex. 4: In the coda of the first movement of the Ravel quartet, a much more effective rise in color-value with the rise of the music is achieved by the first violin remaining on the D string until the second takes the theme, and at that point, led up to by the crescendo from *pp* to *mp*, changing to the lighter tone of the A. Also, the crossing to the E string should be made with great care as the phrase is *diminishing* and should not be disturbed by any sharpness in the lighter color of the higher string:

(FIG. 121)

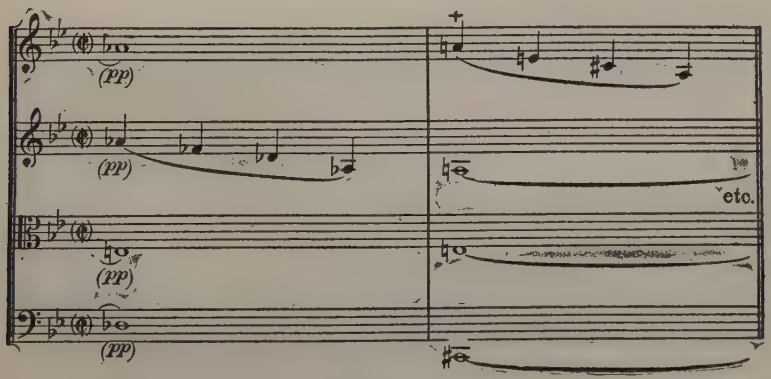




The above excerpt from Quartet by Ravel used by permission of A. Durand & Cie., Paris, France.

Ex. 5: A change from a flat to a sharp key, where the dynamic degree remains the same, as in the following measures (Haydn, op. 76, no. 1) should be made with absolute *quiet*, for there is an emphasis inherent in the new color which may slightly increase the tone and this will produce an erroneous effect, as though the A♭ were a leading tone resolving into A, which it is not. In this particular example care should be taken that the first violin's A string does not resound to the stopped A-natural, as it will tend to do, more especially as the change A-flat-A-natural is made in the octave which already causes a certain resonance:

(FIG. 122)



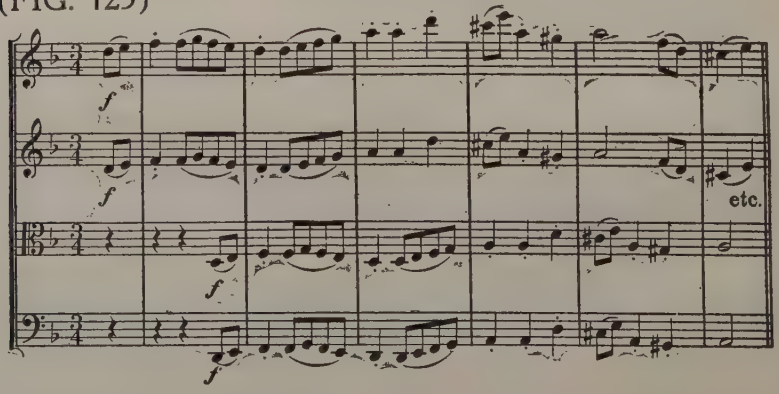
Octaves and the Unison.

It is to be observed that octaves and the unison are much more widely used in modern compositions than in the classical and earlier romantic. Also, alas! that many modern writers use them uninterestingly and excessively, because they have not truly conceived any sense of the significance of four-voice texture. If Haydn, Beethoven, Schubert or Brahms use them, it is because of the distinct color-value they bear. They use them little but with *purpose.* Those modern writers who do use them well prove how effectively the high and low tone-qualities or the individual tone-characteristics of the instruments may be combined. From the player's point of view octaves and unisons are particularly affected by the considerations just reviewed of voice-proportion and string color.

I. Where two voices join to play the same phrase, each may need to use less strength, for two promptly produce greater volume than one. It then becomes a question whether the two shall play equally strongly, whether the higher or the lower voice is the more important, which of the two characteristic instrumental colors shall dominate—for frequently the phrase belongs rather to one than to the other. Let first violins take note: the unison is likely to offer to them an opportunity to retire graciously in favor of one of the other voices.

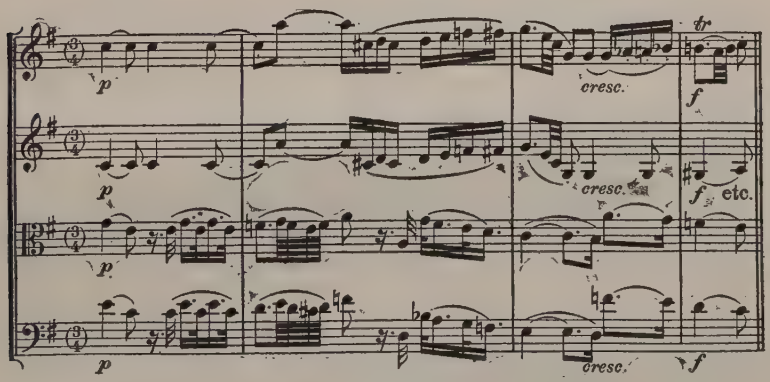
Ex. 1: The canon of the Menuetto in the D minor Haydn quartet, demands a vigorous forte in both voices of each couple, literal, measured, without any fine distinctions save only that the lower voices shall not be so heavy nor the upper so brilliant as to upset the equilibrium between the two halves:

(FIG. 123)



Ex. 2: In the following passage (Mozart, K. 499) the lower voices will play firmly, rather *more* than *p*, but the accompanying violins, since they are in octaves, should play rather *less* than *p*, nearer *pp* in quality. It would seem that the first should be the more distinctly heard since the register of the second (especially at the second recurrence of the passage which is here quoted for the purpose) conflicts with that of the theme and would make too heavy and confused a mixture of the lower voice texture, while the upper octave, merely re-echoed, as it were, in the lower, provides a thin, clear sound pleasantly distinguished against the background of the melody:

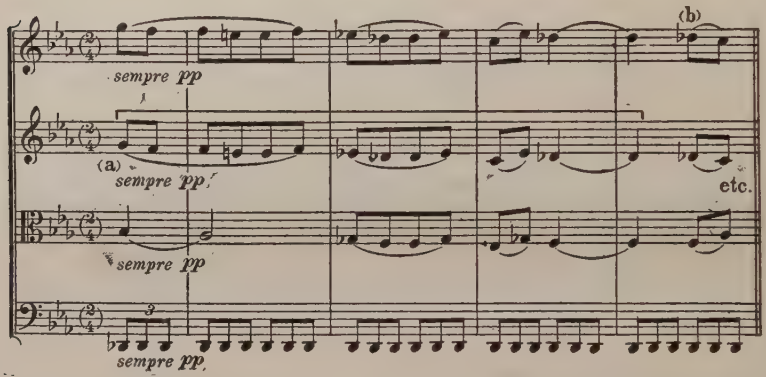
(FIG. 124)



Ex. 3: Where the lower violin, on the other hand, has the color best fitted to the rest of the voices, it should be the more audible, while the upper recedes to almost nothing more than a higher echo. In the following measures (Beethoven, op. 74, var. VI) the voices are thrown into a *lower sense* than in the preceding half of the variation, emphasized by the cello's insistent D-flat, so that it is more effective to hear the sixths of the *inner voices* (a) than merely to remain aware

of the upper octave of the first violin, which soon enough (b) takes up its end again:

(FIG. 125)



Ex. 4: The most magnificent example of the cello's dominance in an octave passage with the first violin is to be found in the final Presto of Beethoven's op. 132 in A minor, where the cello boldly takes away the violin's own high notes (played an octave lower, of course) and forces the violin to give way to its own greater passion. The passage is too long to quote fully, but every student of quartet-playing or composition should acquaint himself with it.

II. Judicious *use of the strings* will materially assist both voice proportion and the establishment of color. It goes without saying that two instruments playing in an identical register will use the same string. There are cases, however, where a violin, playing with, say, the cello which gives the characteristic quality to the phrase, might better *support* the cello's tone on the D string than *imitate* it on the G. Adjacent strings as a rule combine better than those further apart.

Ex. 1: If the second violin, in the following example (Mozart, D, K. 499) enters in the third position on the D string while the first is playing on the E, a curiously *incompatible*, almost false tone is produced, while if it simply enters

in the first position on the A string, there is a smooth mingling of the two violin tones. The viola, in turn, if it enters on the open G string should beware of resounding too loudly in the proportion of the unison:

(FIG. 126)

Substance in Tone—The Pianissimo.

The relativity and interdependence of volumes of tone have already been discussed. Also realistic suggestion which causes us to conceive of a forte as full or heroic, strong or merely loud; of a piano as significant or small, singing or indifferent. There is one more substantial problem to which the quartet player must lend an attentive and critical ear; namely, *the quality of the quartet's tone as a whole.* Merely playing loud or playing soft does not make, at any distance, good tone. The sound may be thin or uneven. Many good organizations fall short of the mark because their tone *lacks body.* That same *vitality* for which the need is obvious in the individual player must be transfused into the quartet tone . A *real* forte does not happen overnight or by the mere gathering of numbers; it is something to work for, and when it is achieved the string-quartet may rival the organ. The *real* piano that sings *consecutively* among the instruments is not the product of a haphazard softness but a substantial body of sound controllable in a scale of degrees. The pianissimo has its own problems: the four voices must be able to make almost no sound and yet that very little quantity must have *quality* or it will seem like the weak passing of horse-hair over sheep's-gut.

The reader will have noted allusions to different kinds of pianissimo. There is the ordinary *pp* of the straight bow that is merely a *less p*. There is the shadowy, vague *pp* produced by the bow crossing the strings very near or over the fingerboard. There is also a cold, white *pp* (suitable perhaps in Fig. 19) produced by drawing the bow near the bridge (not so near, of course, as the point which produces the feathery *ponticello)*. Some discretion is needed in the choice of these. Schubert is apt to mark his melodies *pp*, and he undoubtedly means them to be soft, even very soft. But in both the opening to the A minor quartet (see Fig. 107) and the announcement of the "Death and the Maiden" theme in the D minor, the *straightforward* soft *pp* is more appropriate to the musical style than the more affected color of either the fingerboard or the bridge tone. In music, however, which depends very much for its interest on the *merely instrumental* effects of shifting color — much modern music since the day of Debussy—all possible varieties of pianissimo may need to be resorted to.

Intonation.

No combination of instruments so severely tests the accuracy of the player's intonation as the string quartet. The very exquisiteness of texture of its four selected voices is transparent to any defects, and just intonation is essential to clean and clear performance. The string player, making his own tones as he goes along, tempers his own scale. The quartet-player, then, has to think of the just intonation of his tones, not in diatonic relation, nor in relation to each other on his own instrument, but in terms of the constant, self-engendered process of *modulation*, distributed among the four instruments. In other words, their purity is dictated by their *modulatory relationships*. He speaks of an F as *low* when it is the *downward-resolving seventh* in a dominant seventh chord or if it forms a *diminished* interval; as *high* when it is the *leading-tone* to G-flat or if it forms an *augmented* interval.

The *quality of tone* produced is important to just intonation. A *forced* tone—a chord loudly struck, a sudden pizzicato, a *fz* or *ff* of dramatic or barbaric effect—will be found to *rise*

and may have to be intonated lower than if quietly produced. Sometimes the finger is responsible. When placed on end, so as to give solid pressure of bone, it makes a stiff, hard tone; but when placed on the fleshy tip it makes a flexible, soft tone. Sometimes, when about to move to another position, as downward, the finger relaxes or slips a trifle from its original position and so falsifies the note. *Open strings*—unless for some special purpose of color—should be avoided because (in addition to their inexpressive quality) they cannot be tempered and bring trouble in modulating.

The *proportionate strength* of the different intervals may also affect the delicate precision of intonation. A carefully placed chord sometimes retains a lingering impurity of effect which will vanish if a single interval is emphasized a little more, or a little more subdued, in proportion to the whole. It is always well to play *softly* in testing intonation, as impurities are more easily detected in the absence of disturbing variations in tone quality.

Tuning.

That the four instruments should be accurately tuned to begin with goes without saying. They should tune *one at a time*, taking the A from the first violin (or cello). When apparently clean fifths have been established individually, it is well to check up on the slight inevitable variations by testing open G strings all around and open C strings between viola and cello. As in cleaning up intonation, the best results are obtained by tuning *softly*. It is well to form this habit so that any tuning that has to be done in public may be as inconspicuous as possible.

The Vibrato.

The vibrato should be watched lest it falsify an otherwise well-placed tone, for a little less or more of it affects the purity. A fast, nervous vibrato, tends to *raise* the pitch. It may, nevertheless, be of good purpose in emphasizing the closeness of an upward chromatic progression where it is hard to place

the under finger as high as the pitch demands. Tests of purity are often best made without it: the penetrating clarity of clean intonation may need to be softened by a little vibrato but is easily disturbed by too vigorous oscillation.

Since it affects tone quality, the vibrato is also a factor in production of color. The quartet-player will soon perceive that it inclines to be *monotonously consistent*, that the slight variations in intensity or speed used in solo playing may with excellent effect be exaggerated in the four-voice texture.

A moderation of the vibrato, for example, in the phrase quoted in Fig. 120, to almost nothing would assist the hollow, dramatic effect of the descending progressions.

It is also possible to drop the vibrato entirely, especially in such *pp* passages as can stand the flat, even tone. But devices so extreme should be considered well and applied not too frequently.

The Pizzicato.

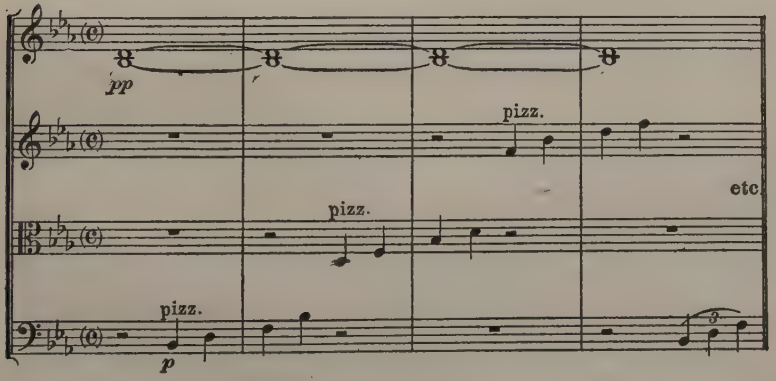
As used in the four-voice texture of the string quartet the pizzicato acquires more importance than in solo music where it appears for virtuositous exhibition or as mere accompaniment (rarely, at that), not with any prolonged *color significance*. Having had little practice in its use, the quartet-player will have to experiment to find the most satisfactory methods of producing pizzicato. He may want to make it dry and snappy or full and ringing. It will sound of the nail unless made with care, and four instruments picking away produce a most inadequate sound, sometimes an atrocious sound. The finger should *pluck* rather than *pick* the string. The pizzicato can be worked into a melodious and sustained effect, with tight finger vibrating the string and quick, accurate action of the plucking finger, and it must always have substance so that it can be molded. Like the pianissimo, the pizzicato is freely used by modern composers in their search for color effects and has accordingly to be treated with as much variety as possible.

It is largely a matter of individual preference which finger is used, but the first or second fingers and the thumb give characteristic effects. The first inclines most to let the nail

be heard, therefore tends to a drier, crisper quality; the second, having more flesh, produces a juicier tone, and it can also be reinforced for quick striking by the thumb placed under its first joint. The thumb sometimes provides a round smoothness in slow consecutive tones, because it can pull off from one string to the next without being lifted, giving more consecutive tone than a finger. There is also a distinction between the action of the plucking finger when the hand is held steady by contact of the thumb with corner of fingerboard and when the finger strikes free. On the violin, the plucking finger produces a *mellower* tone some three or four inches down the fingerboard towards the left hand (provided the left hand is not in a high position, for the length of the string between stopping and plucking fingers affects the volume of sound) than near the end of the fingerboard. On the cello, a soft quality is obtained, especially in broken chords, by the thumb high on the fingerboard (towards the left hand), whereas for strength on the lower strings in forte, the best result is obtained by the finger plucking the string where the bow crosses, between end of fingerboard and bridge.

Ex. 1: The pizzicato figure from which Beethoven's quartet op. 74 derives its popular appellation, should be full and resonant, the plucking of the strings on the different instruments so blended and drawn close that the tone, carrying from one to the other, shall sound like the tone of a single instrument (tight finger vibrating the string):

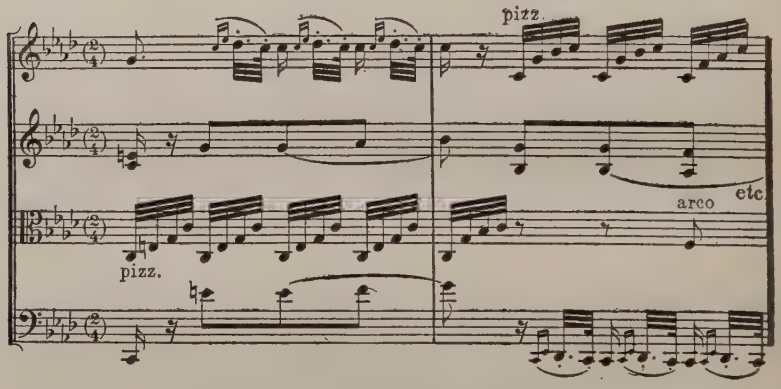
(FIG. 127)



and so on, through the extension in triplets-of-quarters, eighths, and triplets, never losing the full resonance of each tone.

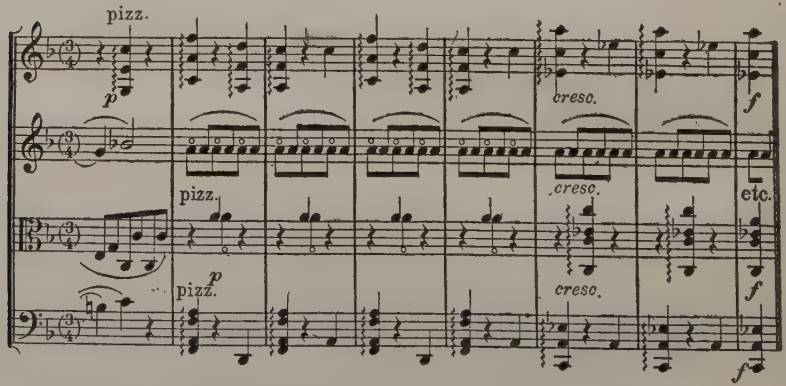
Ex. 2: A *deep, sustained* quality (second finger plucking, well down the fingerboard) is needed in the broken-chord accompanying figure (Beethoven, op. 59, no. 1):

(FIG. 128)



Ex. 3: A *mellow* quality is needed in the broken chords of the following measures (Brahms, C minor, op. 51, no. 1) best obtained by the thumb plucking well down the fingerboard, until the last forte chord, which is not broken but struck:

(FIG. 129)



Ex. 4: A *dry* quality may sometimes be appropriate, in which the resonance of each note is not carried over so fully

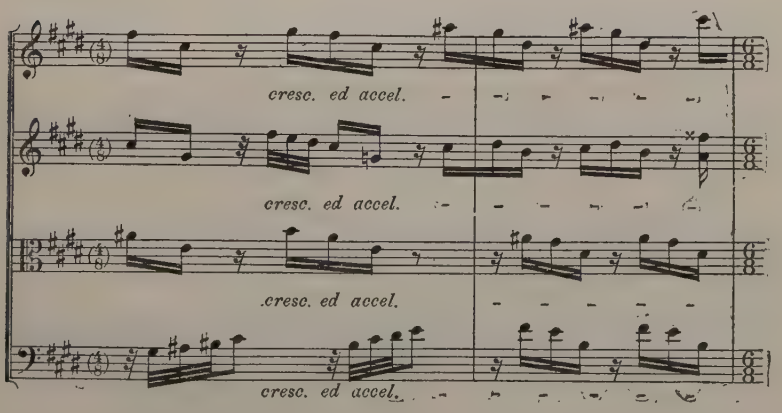
as in the preceding examples. This is accomplished by *less* vibration of the finger on the string. But great care should be taken that it does not degenerate into a mere picking sound. This quiet dryness is appropriate in the unusual pizzicato variation from the Lento of Kodaly's first quartet:

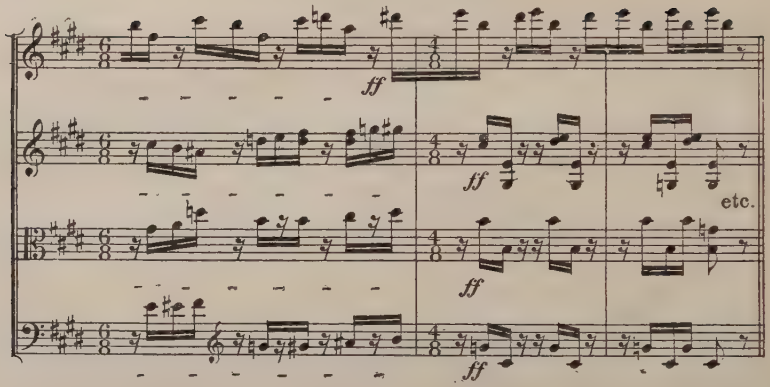
(FIG. 130)

The above excerpt from Quartet by Kodaly used by permission of Rózsavölgyi & Cie., Budapest, Hungary.

It is especially difficult to escape the picking sound where the notes follow rapidly upon each other's heels as in the *crescendo ed accelerando* measures:

(FIG. 131)





The above excerpt from Quartet by Kodaly used by permission of Rózsavölgyi & Cie., Budapest, Hungary.

In fact, where some quality is desired in the tone of a quick pizzicato, it is well not to try for too fast a tempo. A very fast pizzicato is not only difficult to play, but sounds of necessity, dry and "picky," whereas a slightly less pressing tempo gives a more distinct and more musical effect of liveliness. This will be found to apply to music like the "*Assez vif-bien rhythmé*" second movements of the Debussy and Ravel quartets.

Color Value of Tonality.

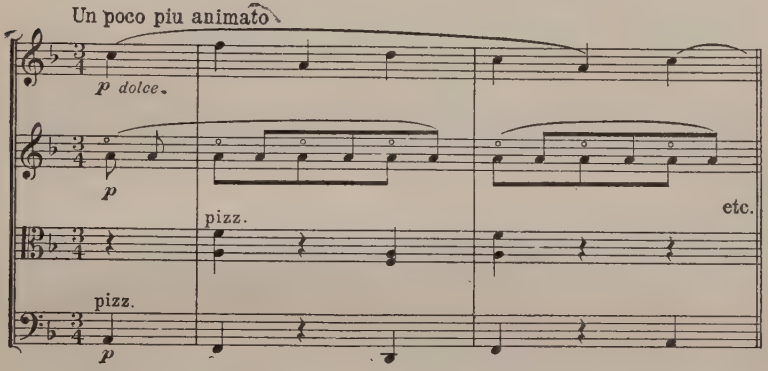
Many prejudices inhere, perhaps, in our conceptions of the color-quality of certain tones, because these are liable to spring from realistic associations which must be individual. But there is a general agreement of opinion upon the emotional effects of major and minor modes, the sombre quality of certain tonalities and the bright quality of others. The *certainty* of the player's *own conception* of a tonality—which may be aided by the realistic suggestion alluded to elsewhere — undoubtedly affects his injection of interest into the color-scheme of the whole (just as it may actually affect his intonation) creating a new color value in the string quartet.

Ex. 1: In Fig. 106 we have seen the new color attached to the more sombre tone and more solemn melody which follow upon the merry major.

Ex. 2: A change of color, caused by the change of key, usually accompanies the contrasting trio in a scherzo or minuet

movement. After the wistful minor Allegretto of Brahms's C minor quartet (Fig. 55) comes the major movement, gayer in aspect, the rolling double A of the second violin emphasizin the mode, the *poco piu animato* indicating the livelier spirit:

(FIG. 132)



Ex. 3: Again, in Fig. 39, at the unexpected resolution to the chord of the sixth, everything contributes to a *total change of color-sense:* the disposition of the voices, the harping of the viola on the main figure on its low E-flat, the suspended ninth of the violins at each progression, the marking of the whole, as Beethoven would not fail to mark it, by a distinct dynamic contrast, *pp*.

Combinations With Other Instruments.

Although this study has been purposely limited to the string quartet, for reasons stated in the introduction, the student of quartet-playing should realize the need of applying what he has learned in the study of his particular form to the color and texture problems introduced by the combination of other instruments with the quartet.

The added viola of the viola quintet introduces a highly distinctive color and its effects should be accordingly well considered. In the string sextet, where both cello and viola are doubled, the distinction of color is perhaps less acute, but the two violins are thrown into a new relationship with the heavier background and the treatment of their roles will be

modified in certain instances. The octet, or doubled quartet, is again less specific in color but, with its size, proportionately more varied, capable of larger tone-effects.

Wind instruments introduce other problems of color. The range, warmth, dignity, mellowness of the clarinet endow it with a special adaptability to string tone—better than that of the cold clear flute, the heavy horn, the cranky oboe which, like the viola, is peculiarly distinctive in tone.

The string quartet, as we have seen, sacrifices its most particular characteristics when playing with the piano; but the piano, nevertheless, demands of the strings a degree of elasticity and adjustment in ensemble, and to the new color and acoustical effects of the percussion instrument, which constitutes excellent discipline for the quartet as a unit.

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